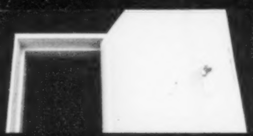

Five Ways to Drive Your Best Workers Out the Door. Is your management style engaging people or pushing them toward the exits? PAGE 26

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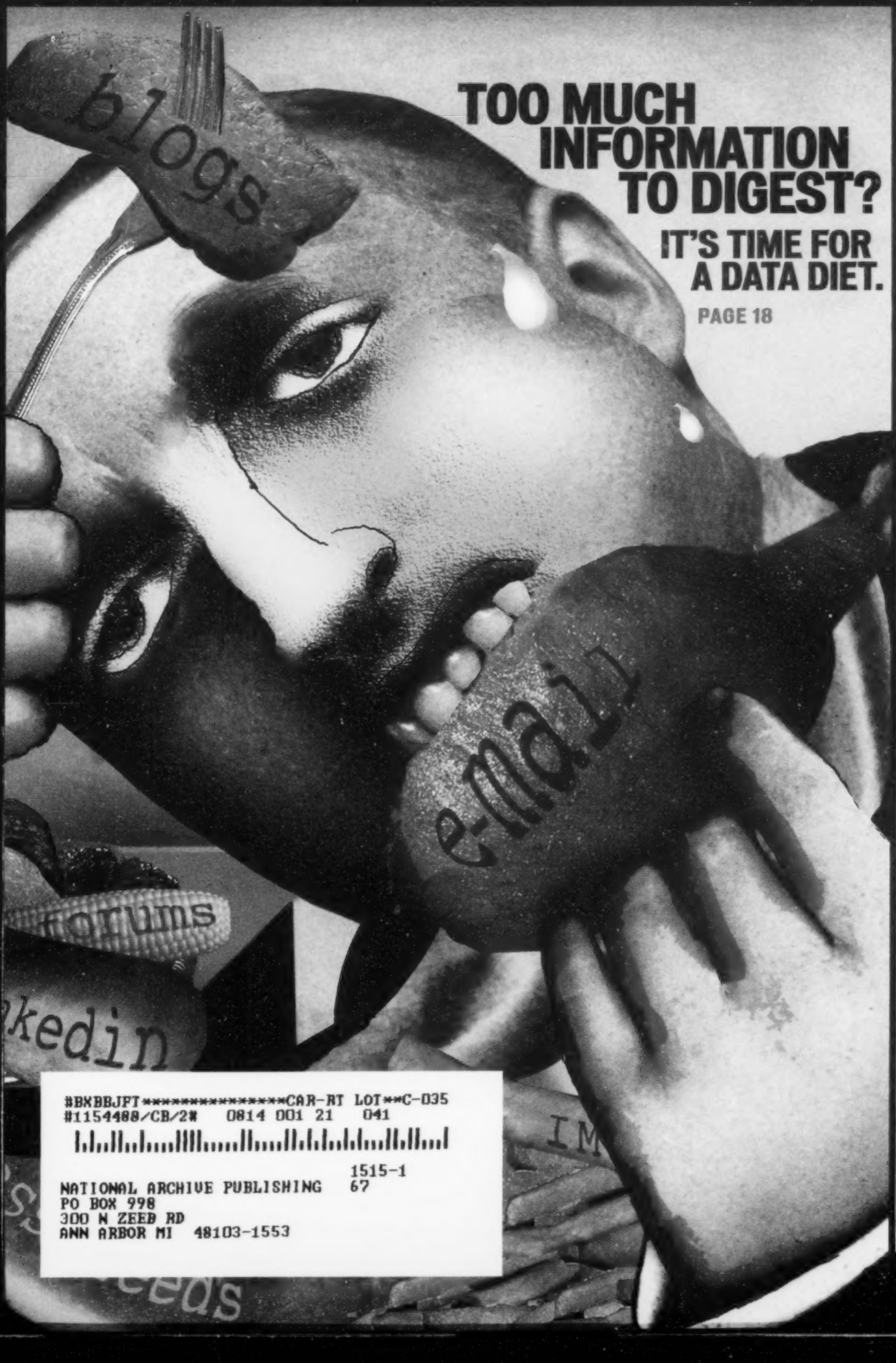

TOO MUCH INFORMATION TO DIGEST?

IT'S TIME FOR A DATA DIET.

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AUGUST 25, 2008
VOL. 42, NO. 34 $5/COPY

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SAP users want proof that they'll get their money's worth on tech support. PAGE 12

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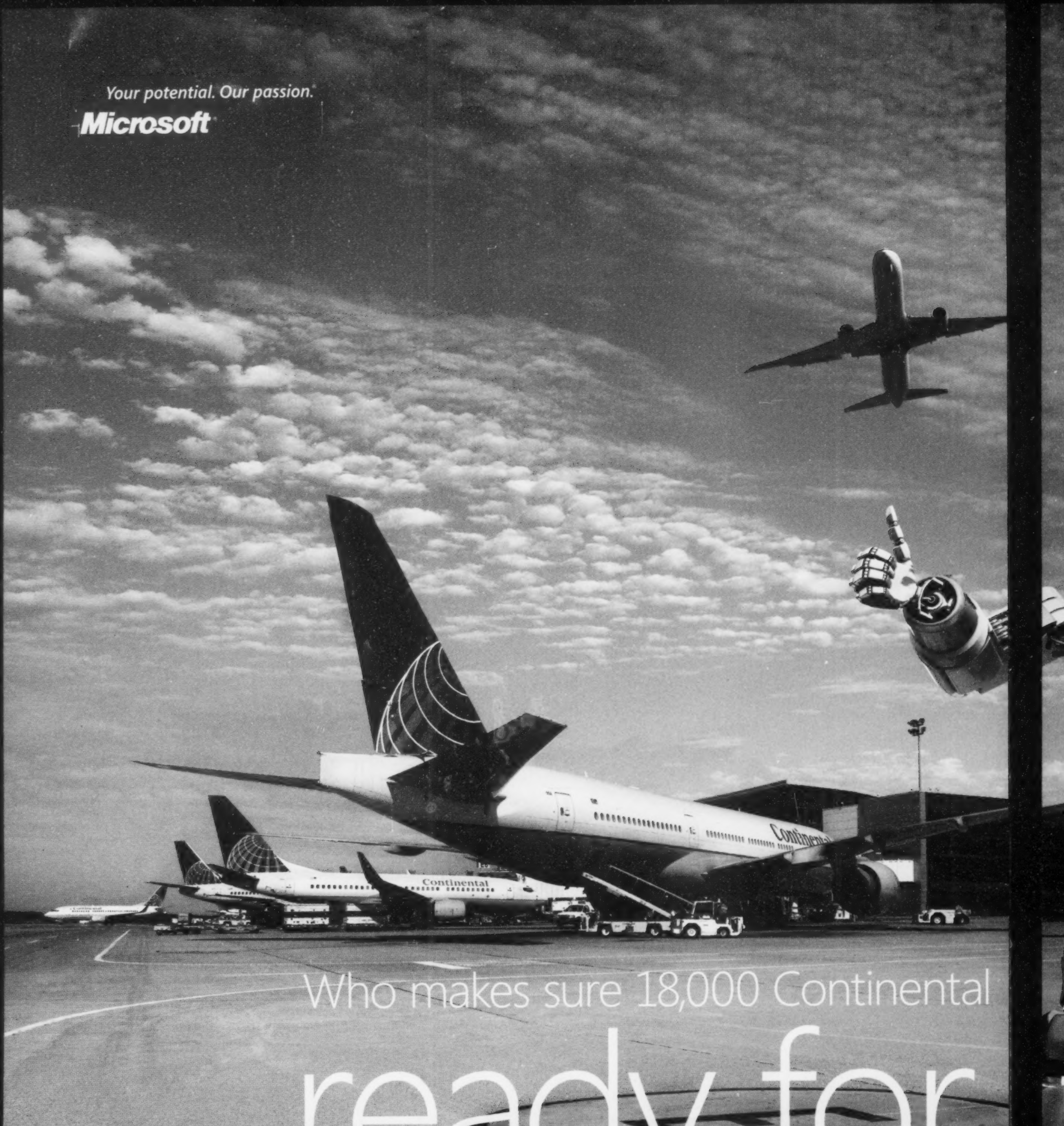
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Flight crews don't have an office to check into. At Continental Airlines,® they have the Web-based Crew Communications System, where they log on, check schedules, and trade shifts. To ensure everyone arrives on time, they migrated to Windows Server® 2008. Get the full story at **serverunleashed.com**

Windows Server® 2008

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7 Microsoft plans to buy another **$100 million** worth of SUSE Linux **support vouchers** from Novell. | National Geographic launches an effort to **supply widgets** to other media **Web sites**.

8 Intel will once again beat rival **AMD** to market – this time with its new **six-core Xeon** processors.

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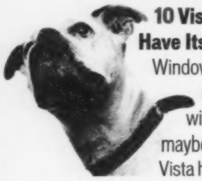

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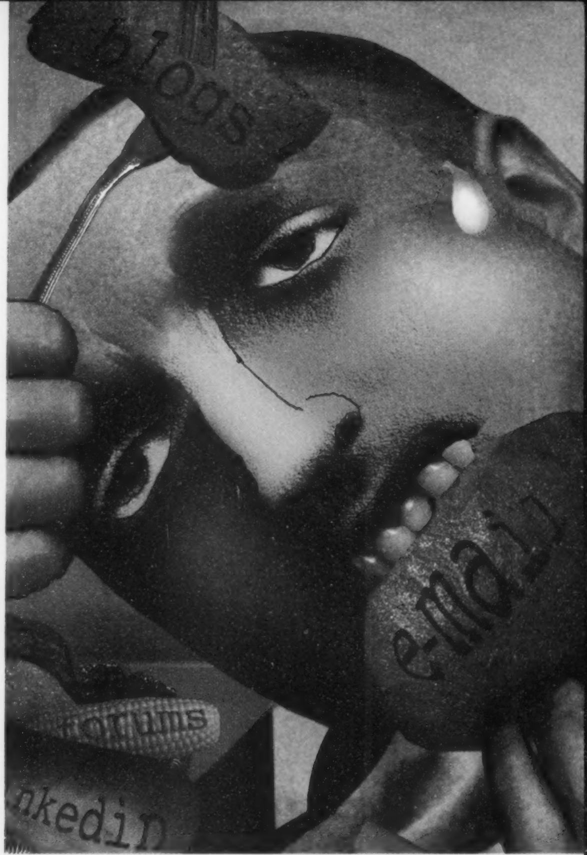

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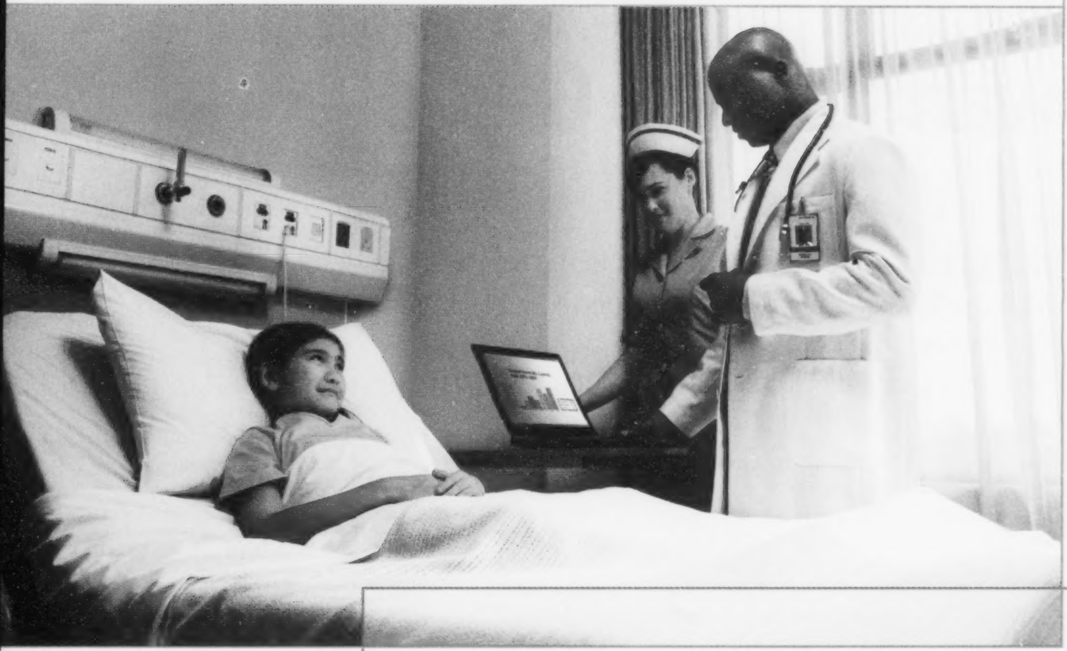

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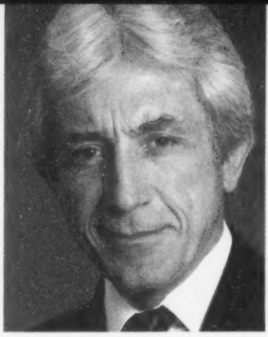
EDITOR'S NOTE

Don Tennant



Taiwan's Blame Game

LIKE A LOT OF PEOPLE, I find that many of the things Microsoft does drive me crazy. A perfect example is the attempt to mask its late arrival to the software-as-a-service game by claiming that SaaS is so two years ago, and that now it's really all about "Software + Services."

As I indicated in my "Raining Mud" column a few weeks ago, coining a different term so you can pretend you're the star player in a new and improved variation of the game, while quintessentially Microsoftesque, just confuses the marketplace. Shut up and compete in the same stadium with everybody else instead of trying to draw the crowd onto Microsoft Field.

That said, I'm driven equally crazy by mindless Microsoft-bashing, and even crazier by some of the absurd charges that are routinely leveled against Microsoft by government bodies. The arena where the lights have been lit in the most recent display of government nonsense is Taiwan.

As we reported last week, the Taiwan Fair Trade Commission has launched an investigation into whether Microsoft is abusing its overwhelmingly dominant position in the island's software market. The probe follows a study by Taiwan's Consumers' Foundation that found that Microsoft has a 98% share of Taiwan's operating system market.

It also follows, by about six years, a very similar TFTC investigation into whether Microsoft was using its dominance to inflate prices. That six-month effort was inconclusive, and Microsoft settled with the government by lowering its prices by an average of 26.7%. It's not what has happened since then, but rather what hasn't happened, that prompted the TFTC to take action against Microsoft once again.

What hasn't happened is the adoption of Linux in Taiwan in any meaningful way, despite the government taking a stand in favor of Linux. Like many other countries that have pursued initiatives to advance open-source alternatives to Microsoft, Taiwan has adopted policies aimed at promoting the proliferation of Linux. But in Taiwan's case, it seems to be more show than substance.

■ Microsoft could face a fine of nearly $800,000 for championing Vista over XP.

For example, there's the 2006 mandate that all PCs purchased by the government be certified as Linux-compatible. Of course, Linux compatibility and Linux use are two entirely different things, so the government didn't actually have to undergo the inconvenience of switching to Linux. In fact, Taiwan has little to show for all the Linux bluster beyond the operating system's expanded use in embedded systems and mobile devices. Since that has had almost no impact on Microsoft's dominance, the halfhearted Linux push has been an abject failure.

There's no failure like a government failure to arouse blame-shifting and finger-pointing, and what better scapegoat than the U.S. corporate monster that spurred the failed effort? So it's little surprise that the TFTC decided to exhume a dead investigation and prop it up as a response to Microsoft's continued dominance of the local software market.

The problem was finding a way to keep this probe from being as inconclusive as the first one. The TFTC needed a way to breathe some life into the cadaver. How could it gain the upper hand? Easy: Tap into widespread anti-Vista sentiment.

The Consumers' Foundation survey found that 56% of respondents who had recently bought a new PC were forced to buy Vista instead of Windows XP. Bingo — the TFTC would look into complaints that Microsoft was limiting consumer choice by restricting the availability of XP.

It may well turn out to be an effective strategy, but it's a hollow one. Microsoft could face a fine of nearly $800,000 if it's found that the company's championing of Vista over XP is in violation of Taiwan's antitrust laws. But by the same reasoning, Microsoft could be held liable for restricting the availability of Windows 95 and Windows 3.1. It's ridiculous.

If I didn't believe so strongly in engagement, I'd suggest that Microsoft just pull up stakes and wish Taiwan's government the best of luck. At least then Taiwan might get serious about Linux. ■

Don Tennant *is editorial director of* Computerworld *and* InfoWorld. *Contact him at don_tennant@computerworld.com, and visit his blog at* http://blogs.computerworld.com/tennant.

ONLINE CHATTER

RESPONSE TO:

No Laptops Left Behind

Aug. 11, 2008

People's hands are a fixed size. A real keyboard is needed for most real work. Sure, a phone can get off a quick response to an urgent e-mail, but creating or editing real content requires a keyboard and a bit more software than a phone can support.

■ **Submitted by:** *Anonymous*

RESPONSES TO:

Standing on Principle

Aug. 11, 2008

There's a lot I disagree with Richard Stallman on, but I've always admired the fact that he stands up for what he believes and spends large amounts of his own time and money to create and promote a viable alternative to the proprietary software system he so adamantly opposes. (He does things, instead of just complaining.) By doing so, he has performed a tremendous public service, regardless of whether he ultimately succeeds in his objectives.

I also think he's right on a lot of issues, particularly on DRM8, on the nature of so-called intellectual property, and that existing copyright and patent protections are excessive.

I do think that proprietary software is legitimate, provided that restrictions are limited to copying and concurrent usage (treat it like a book), but also that the free software movement has done the consumer a big favor by creating a much more competitive market.

■ **Submitted by:** *John L. Reis*

I find it ironic that Stallman makes a big deal out of the "ethics" of free software while intentionally switching to a product made in a country — China — known for their socially and politically repressive regime. Who needs free speech and freedom of religion when you can have a free BIOS?

■ **Submitted by:** *Mike*

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Get Tough on Telecommuting: What to Ask Before You Say Yes

Working from home isn't for everyone, or for every project or company. Make sure you get answers to these six hard questions before you give employees a pass from office life.

Wi-Fi Tweaks For Speed Freaks

Is your wireless connection painfully slow more than 10 feet from the router? Do you have random dead spots? Our tips will help you solve those problems and get the most out of your Wi-Fi network.

While Windows Sleeps

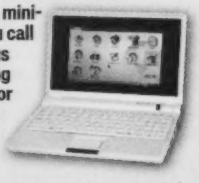
OPINION: Dell and Intel give users what they want: the ability to turn off Windows. Mike Elgan wonders when Microsoft will wake up.

What My Clients Taught Me

OPINION: It's a long list, but the lessons can all be boiled down to a single sentence, says former CIO Al Kuebler.

Ultraportable Laptops: Their Rise and Possible Fall

Netbooks, ultraportables, mini-notebooks – whatever you call them, devices like the Asus Eee PC have been grabbing headlines. Are they here for the long term, or are they only a flash in the pan?



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News Digest

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THE WEEK AHEAD

MONDAY: The Air Force Information Technology Conference 2008 opens in Montgomery, Ala., with a career fair and sessions on how the U.S. Air Force is using IT. Also starting today: the Nvision 08 visual computing conference in San Jose.

THURSDAY: Dell and Novell are both scheduled to report their latest financial results.

FRIDAY: IFA 2008, billed as the world's largest consumer electronics show, begins in Berlin.

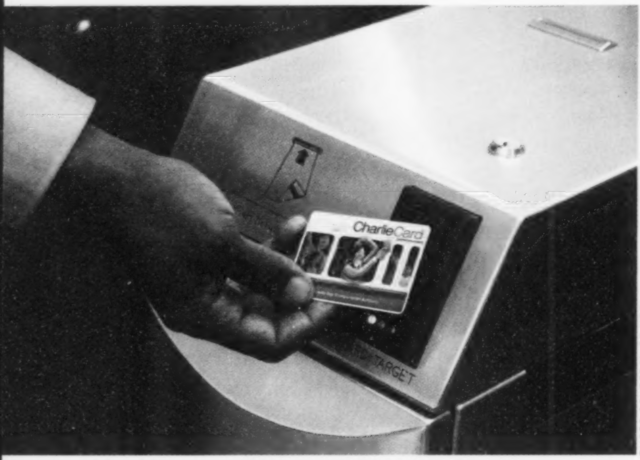


PHOTO COURTESY OF MBTA

« The MBTA said fixing the ticketing flaws will take five months.

SECURITY

Judge Lifts Gag Order on Flaw-Finding MIT Students

A FEDERAL JUDGE dissolved a gag order against three MIT students last Tuesday, freeing them to publicly discuss security flaws they found in the ticketing system used by Boston's mass-transit agency.

After a hearing in Boston, U.S. District Judge George O'Toole sided with the Electronic Frontier Foundation, which is representing the students. EFF legal director Cindy Cohn argued that the federal Computer Fraud and Abuse Act governs transmissions of protected information between computers, not speech. The Massachusetts Bay Transportation Authority (MBTA) had contended that the law also applied to "verbal transmission" of information.

The three students originally planned to detail their findings at the Defcon hackers convention on Aug. 10. But another judge imposed a 10-day restraining order against them the day before the event, after the MBTA claimed that publicizing the flaws would cause "significant damage" to the agency.

According to slides on a CD that was distributed to Defcon attendees, the vulnerabilities could allow hackers to fraudulently increase the dollar amounts credited on the MBTA's smart cards and magnetic-stripe tickets.

MBTA attorney Ieuan-Gael Mahoney said at the court hearing that a written analysis provided by the students had convinced agency officials that the flaws were valid. He asked for a five-month continuation of the restraining order, saying it will take the MBTA that long to plug the holes.

Cohn reiterated earlier promises that the students don't plan to release details that would enable others to hack the MBTA's system. She also said that extending the gag order could make security researchers reluctant to publicize flaws.

Steve Bellovin, a computer science professor at Columbia University who signed a letter asking the judge to lift the gag order, welcomed the ruling. But he voiced disappointment that O'Toole didn't rule on the case's free-speech aspects.

On the other hand, Marcus Ranum, chief of security at Tenable Network Security Inc., said that publicizing the flaws has significantly increased the chances that they will be exploited.

— Chris Kanaracus of the IDG News Service, and Computerworld's *Jaikumar Vijayan*

SOFTWARE

Microsoft Lists Windows 7 in Patching Tool

MICROSOFT CORP. has already seeded its most popular patching tool for corporate users with a reference to Windows 7, its planned successor to Windows Vista.

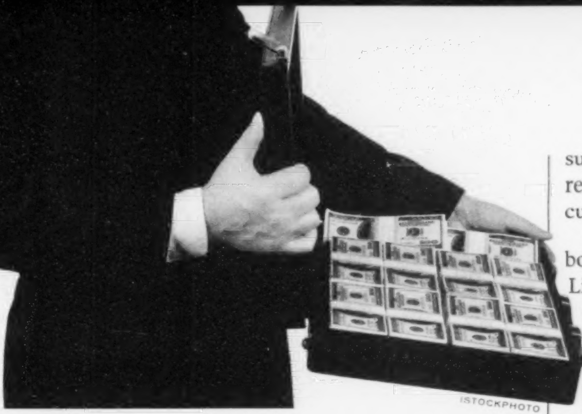
Windows 7 Client is listed on the product-selection screen of Windows Server Update Services, which lets IT managers feed security updates to PCs and servers.

Microsoft said the appearance of Windows 7 in WSUS wasn't an accident. "This is a standard step in the Windows development process," a spokeswoman wrote via e-mail. She said that the reference was added for testing purposes.

Windows 7 is expected late next year or in early 2010. Microsoft started talking about it publicly earlier this year, and the Windows development team launched a Windows 7 blog this month.

– GREGG KEIZER

■ Windows 7 will be based on the same OS kernel as Vista.



ISTOCKPHOTO

OPERATING SYSTEMS

Microsoft Adds $100M to SUSE Linux Support Tab

TWO YEARS ago, Microsoft Corp. agreed to buy $240 million worth of support vouchers for Novell Inc.'s SUSE Linux operating system as part of a controversial partnership deal between the two vendors. Now Microsoft is reaching into its pocket again, to the tune of another $100 million.

The once-bitter rivals — which are still facing off against each other in an antitrust lawsuit that Novell filed in 2004 — jointly announced last week that Microsoft has committed to purchase up to $100 million worth of additional support vouchers from Novell, starting Nov. 1.

Microsoft resells the vouchers to customers that are looking to run mixed installations of Windows and SUSE Linux systems. The unusual scenario in which the world's dominant proprietary software vendor is helping to market an open-source operating system that's a rival to Windows began in November 2006, when Microsoft and Novell signed their patent cross-licensing and software interoperability deal.

By entering into the agreement, Microsoft acknowledged that many of its corporate users were also fans of open-source software. To prove that point, the two companies said last week that $157 million worth of SUSE Linux support vouchers had been redeemed by Microsoft customers as of May.

Customers that have bought vouchers for SUSE Linux support subscriptions include Wal-Mart, HSBC Holdings, Renault, Southwest Airlines and BMW, according to Microsoft and Novell. All told, about 100 companies have redeemed vouchers thus far, with a "pretty good percentage" of them being new customers for Novell, said Susan Heystee, vice president and general manager of global strategic alliances at Novell.

Susan Hauser, general manager of strategic partnerships and licensing at Microsoft, confirmed that some of the subscription vouchers have been sold to customers for less than face value. But she added that Microsoft hasn't given any of them away for free.

Although the deal with Microsoft has boosted Novell's bottom line and helped the company make some inroads against Linux market leader Red Hat Inc., Novell's total revenue has risen only slightly over the past two years.

— Eric Lai

Short Takes

- **Microsoft Corp.** said it plans to house servers in shipping containers at a second data center. A spokeswoman said the company isn't sure how large the $500 million data center in West Des Moines, Iowa, will be or how many systems it will hold. Earlier this year, Microsoft said it would deploy up to 440,000 servers in shipping containers at a new data center near Chicago.
- **Microsoft** reissued one of the 11 software patches it released on Aug. 11, saying it had posted the wrong version on its Download Center site. The patch fixes three PowerPoint flaws in Office 2003. Users who downloaded it via Windows Update or Windows Server Update Services don't need to reinstall it.
- **Amazon.com Inc.** added a persistent storage capability to its cloud computing service, enabling users to store up to 1TB of data in individual storage volumes tied to Amazon's Elastic Compute Cloud, or EC2, technology.

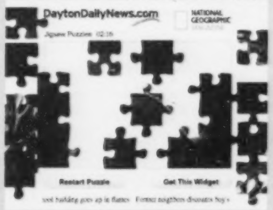
DEVELOPMENT

National Geographic Expands Widget Program

The multimedia unit of National Geographic Ventures last week said it is expanding its foray into the world of widgets with a new campaign to let third parties co-brand the publisher's widgets and add the code to their own Web sites.

At the same time, NewsGator Technologies Inc. agreed to create, host and track dynamic widgets – small, single-purpose code snippets – for the National Geographic Society unit.

Rob Covey, senior vice president of content and design at National Geographic Digital Media, said the first batch of widgets offered to third parties includes one that transforms photographs into digital puzzles.



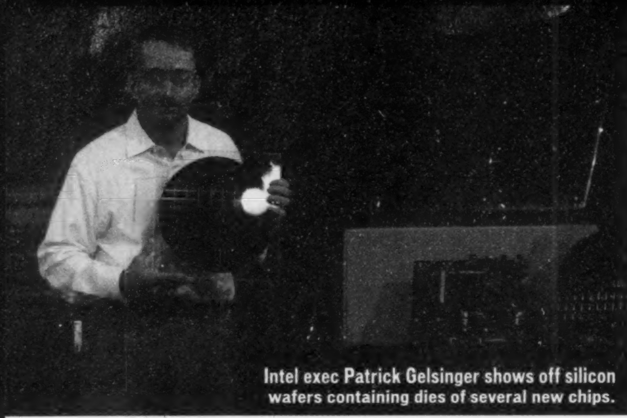
National Geographic's puzzle widget, as seen on DaytonDailyNews.com

To date, Covey said, the puzzle widget has been syndicated to 23 media sites, including Tampa Bay Online and DaytonDailyNews.com, extending the potential reach of the National Geographic widget to more than 3 million new users.

On partner sites, the puzzle widget includes a link to the National Geographic site, where new puzzles are added several times daily, he added.

"For a lot of our partners, finding applications that might be interesting to the Facebook generation is problematic," Covey said, noting that the puzzle idea was inspired partly by input from National Geographic employees under the age of 25.

– HEATHER HAVENSTEIN



Intel exec Patrick Gelsinger shows off silicon wafers containing dies of several new chips.

HARDWARE

Intel Will Trump AMD With Six-Core Chip Next Month

THE QUAD-CORE chips that have sat atop the microprocessor heap for the past two years are about to start being replaced by bigger, burlier six-core processor technology.

In a keynote address at Intel Corp.'s annual developer forum last week in San Francisco, Patrick Gelsinger, senior vice president and general manager of the chip maker's digital enterprise group, announced that a six-core Xeon server processor will ship in September.

Code-named Dunnington, the X7460 Xeon chip is built with Intel's 45-nanometer Penryn technology.

Moving beyond quad-core processors is a major step — and one that keeps Intel well ahead of rival Advanced Micro Devices Inc., said Dan Olds, an analyst at Gabriel Consulting Group Inc.

"This is a big deal," said Olds. "What we don't know is how much power the chips consume and how much heat they will dissipate, and those are key concerns."

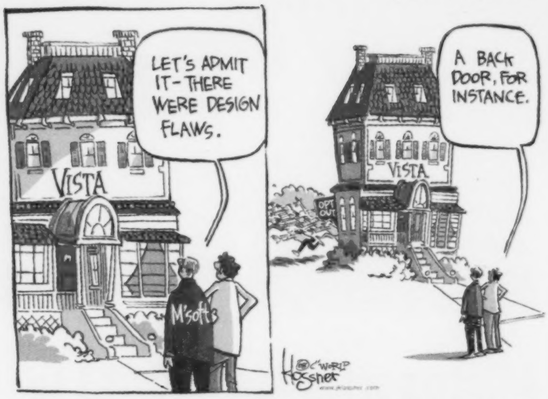
AMD isn't slated to release its first six-core chip, code-named Istanbul, until the second half of 2009.

Intel executives last week also disclosed that the first offering in the new Nehalem processor family, a quad-core server chip, is expected to ship this fall. The other members of the Nehalem family — desktop, dual-core, eight-core and additional quad-core chips — are slated to ship over the next year.

Jim McGregor, an analyst at In-Stat, said the lengthy rollout schedule could indicate that the technology is more complex than Intel engineers had expected.

— Sharon Gaudin

BETWEEN THE LINES *By John Klossner*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BENCHMARKS LAST WEEK

The U.S. Patent and Trademark Office ruled that Dell Inc. can't trademark "cloud computing" because the term is generic and widely used. Dell has six months to file a response.

Salesforce.com Inc. reported second-quarter revenue of $263 million, putting it on track to top $1 billion for the year. The software-as-a-service vendor also said it has signed its biggest sales deal yet, with Dell.

FIVE YEARS AGO: The words *cyberslacker*, *weblog*, *ringtone* and *warchalking* were added to the Oxford Dictionary of English.

Global Dispatches

Taiwan Targets Microsoft in Probe

TAIPEI – The Taiwan Fair Trade Commission last week launched an investigation to determine whether Microsoft Corp. holds a monopoly position in the island's software market and, if so, whether the firm abuses it.

A spokeswoman for the commission said that the investigation will look into complaints that Microsoft is limiting consumer choice by restricting the availability of Windows XP on new PCs, and that its pricing schemes are unfair.

If Microsoft is found to have violated Taiwanese antitrust laws, it faces fines of up to $25 million New Taiwan ($797,450 U.S.).

"We fully intend to comply with the process and make sure they get all the information they need," said Matt Pilla, Microsoft's director of public relations in Asia.

Dan Nystedt,
IDG News Service

Botswana Invests In Undersea Cable

GABORONE, Botswana – The government of Botswana this month said it has invested $100 million (U.S.) in Africa's second-biggest submarine-cable project, which will link countries in eastern Africa and connect them to Europe.

Construction of the East Africa Submarine Cable System, which will run under the Indian Ocean from South Africa to Sudan, is expected to be completed by 2010.

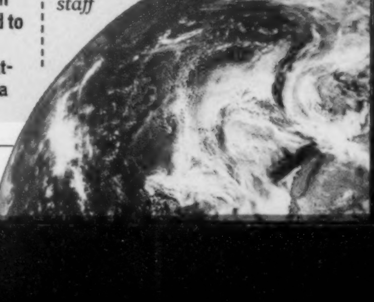
Botswana is also negotiating with Namibia and Angola to determine the most feasible way for it to access an existing undersea cable that runs up the western coast of Africa, said Duke Lifhoko, Botswana's minister of trade and industry.

Michael Malakata,
IDG News Service

BRIEFLY NOTED

Spending on IT products and services in the Asia-Pacific region is expected to reach almost $523 billion (U.S.) this year, according to Gartner Inc. The research firm also estimated that the compound annual growth rate of IT spending in the region will total 9.3% through 2012, compared with 4.5% in the U.S.

Computerworld Hong Kong staff



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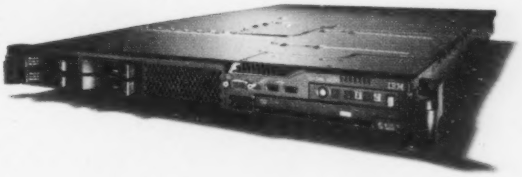

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NEWS ANALYSIS

Vista May Still Have Its Day

Think Windows **Vista is a hopeless dog** and **XP was always the cat's meow** among users? Think again.

By Eric Lai

TWENTY-ONE MONTHS after its initial release, what do we know about Windows Vista? That home users hate it, businesses are uninstalling it and — according to Gartner Inc. — it's proof that the 23-year-old Windows line is "collapsing" under its own weight.

Meanwhile, predecessor Windows XP has belatedly become so beloved that it's garnering more calls for "unretirement" than NFL icon Brett Favre did in his wildest dreams this summer.

But all of the griping about Vista and instant nostalgia for XP covers up a dry, statistical reality: XP itself was slow to catch on with users — maybe even slower than Vista has been thus far. For instance, in September 2003, 23 months after its release, XP was running on only 6.6% of corporate PCs in the U.S. and Canada, according to data compiled by AssetMetrix Inc., an asset-tracking vendor that was later bought by Microsoft Corp.

In comparison, Forrester Research Inc. reported that as of the end of June — 19 months after Vista's November 2006 debut for business users — the new operating system was running on 8.8% of enterprise PCs worldwide. Forrester analyst Thomas Mendel, who authored the report, wasn't impressed: He compared Vista to the ill-fated New Coke.

However, even Gartner, that prophet of Windows' doom, forecasts that Vista will be more popular at the end of this year than XP was at a similar juncture — with 28% of the PC operating system installed base worldwide, vs. 22% for XP at the end of 2003.

"The uptake of XP was slower than people remember today," said Michael Cherry, an analyst at Directions on Microsoft in Kirkland, Wash. He noted that many IT managers "labeled XP a consumer-only upgrade" at first.

Users loved Windows 2000, which was less than two years old when XP was released (see story at right). And for many, XP didn't add enough to make them want to move up. "XP was really viewed as a glorified upgrade, not a new operating system in its own right," recalled Donnie Steward, CIO at ACH Foods Inc., a Memphis-based maker of processed foods.

Then there were all the security issues. XP now is considered to be highly secure, but that wasn't the case in 2002. That's when LifeTime Products Inc. upgraded to the operating system after Microsoft released Service Pack 1, its first bug-fix update. "We used to say XP was like Swiss cheese — full of holes everywhere," said John Bowden, CIO at the Clearfield, Utah-based maker of recreational equipment.

To try to fix the security problems, Microsoft developed a second service pack, which it pushed customers to adopt. But SP2 was such a major change that it broke applications — lots of them, especially enterprise ones. That caused many companies to block updates to SP2 on their PCs for months until they could prepare for the mammoth upgrade.

> **"It's not a bad OS. There are big improvements under the hood.**
>
> MERRIE WALES, IT MANAGER, ON WINDOWS VISTA

Some of the reasons cited for Vista's supposed doom are unique to the new operating system. There's the widespread exercising of downgrade rights by users who purchase PCs with Vista but then revert to running XP. Mac OS X has taken some market share away from Windows over the past year. Cloud computing technologies offer new competition. And the scheduled 2010 arrival of Vista's successor, which Microsoft is calling Windows 7, looms on the horizon. Both Steward and Bowden said they will likely skip Vista entirely and wait for Windows 7.

But other strikes against Vista are ones that XP has also faced and overcome, such as a tottering economy (the dot-com bust, in XP's case), the belief that it was a piece of "bloatware," accusations of price gouging by Microsoft, and apathy or revolt by end users.

For most users, "change is always bad," said Merrie Wales, information systems manager in the human resources department in Glenn County, Calif. Wales, who oversees 250 desktop PCs, said that only a tiny portion of her users welcomed a move to Vista this spring. But, she noted, a similar sliver of users was happy when the agency finally upgraded to XP in 2006.

And the Vista rollout "has turned out much better than we anticipated," Wales said. "It's not a bad OS. There are big improvements under the hood."

There also are other factors that brighten the long-term outlook for Vista. Application virtualization technology is giving IT administrators new options for deploying software and avoiding compatibility problems. And with Vista, 64-bit computing finally appears to be catching on among more than just technology enthusiasts.

In addition, history tends to repeat itself. XP deployments eventually accelerated, reaching near-ubiquity by the time Vista finally debuted. Similarly, some industry observers expect rollouts of Vista to pick up — even in the shadow of Windows 7 — as a Vista SP2 arrives, companies refresh aging hardware and the end of mainstream support for XP next April draws closer.

For instance, Gartner expects Vista to be running on 49% of all PCs worldwide by the end of next year — surpassing XP's market share, which the consulting firm forecasts at 44%.

Lundberg Family Farms in Richfield, Calif., is in the process of upgrading its 100 PCs to Vista. "We don't try to be at the cutting edge, but we don't want to be too far behind," said Todd Ramsden, Lundberg's IT manager. "Sooner or later, we knew we were going to have to move forward."

Ramsden added that his users have been "pretty good with going with the flow" on the rollout. "I've gotten some complaints about Vista," he said. "But most of the time, it turns out they're really complaining about some change in Office 2007."

Moreover, most of the talk among enterprise Vista holdouts is about sticking with XP or waiting for Windows 7 — not switching to Mac OS X or Linux. Cherry said skipping an operating system release may merely be a long-term trend, not an indication "of Vista being a failure." And he noted that until companies jump off the Windows treadmill instead of merely slowing it down, "Microsoft still makes its money." ■

Same Old Story?

EARLY OPINIONS OF Windows XP were remarkably similar to those that many users offer about Windows Vista today.

For instance, a *Computerworld* survey of 200 IT managers conducted in the fall of 2001, just before XP was released, found that 53% of the respondents didn't plan to upgrade their PCs, while another 25% were undecided. And in an informal poll of 25 users a year later, only four said they had started deploying XP.

"We have not moved to XP, and we have no plans to," one CIO said in 2002. "This is an upgrade that offers nothing to a business customer."

Another IT manager said that the cost of upgrading to XP was "very high" and that there wasn't "a lot of perceived value" in moving up.

Many companies had just finished or were still rolling out Windows 2000 when XP came along just 20 months after its predecessor. Few could get excited at the prospect of another upgrade, especially when the economy turned sour after the dot-com bust.

And although XP may seem svelte compared with Vista, at the time, it was considered by many to be a bulky resource hog that likely would bog down applications on older PCs.

As of March 2005, Windows 2000 was still running on almost half of business PCs in the U.S. and Canada, according to usage data compiled by asset-tracking vendor AssetMetrix prior to its acquisition by Microsoft.

"Vista really does parallel the situation with XP in a lot of ways," said Michael Cherry, an analyst at Directions on Microsoft.

– ERIC LAI

SAP Users Seek Proof of Support Plan's Benefits

Many still question the vendor's move to force them to use the Enterprise Support program. **By Chris Kanaracus**

SOME USERS are calling on SAP AG to back up its claims that its new Enterprise Support program provides significant advantages over the less-expensive offerings it is replacing.

The software vendor announced in mid-July that it plans to force its users to replace their Standard and Premium Support programs with the new, costlier Enterprise Support program.

"Supposedly, we're going to get more value. I haven't seen it because I haven't been shown it," said Michael Davidson, CIO at Apotex Inc., a Weston, Ontario-based pharmaceutical firm.

Though Apotex won't immediately feel the effects of higher costs because an existing deal is still in effect, Davidson noted that "we need to look at a longer term of what that level of maintenance is and ask quite honestly, 'Are we getting business value?' "

The Americas' SAP Users' Group (ASUG) last week began a series of Web seminars designed to provide its members with information on the new program.

At the initial seminar, an SAP marketing official provided an overview of the Enterprise Support offering, according to an ASUG statement. Other seminars are slated to be held Sept. 24, Oct. 16 and Nov. 12, the user group said.

In a separate statement, ASUG said that it plans to evaluate the Enterprise Support offering to find out "what works and what needs correction [and] thus leverage our considerable member base to influence SAP to either change the costs or change the offerings as appropriate."

In an interview, ASUG CEO Steve Strout noted that the group has already managed to convince SAP to gradually phase in the increased fees for the new program.

PRODUCT DETAILS

SAP Enterprise Support

- **Continuous quality checks for technical risk analyses.**
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- **On-demand support integration to link users, partners and SAP.**
- **Access to the Solution Manager application management tool.**
- **Access to the Run SAP methodology.**
- **Priced at 22% of a user's software license fees.**

The SAP UK & Ireland User Group, which lodged a strong initial protest against the vendor's plan, "is continually engaging with SAP regarding the support issue," a spokesman said.

Meanwhile, Deutschsprachige SAP Anwendergruppe e.V. (DSAG), the German-speaking SAP user group, said in a statement earlier this month that it "cannot support the compulsory replacement of Standard Support with Enterprise Support at this time." The DSAG's membership includes 2,100 companies in Germany, Austria and Switzerland.

DSAG board member Andreas Oczko said in an interview that feedback from the group's members, "especially from small-to-medium-[size] businesses, is that they have very simple landscapes and are familiar with their systems. They don't see at the moment why they should need enterprise support."

> **"Supposedly, we're going to get more value. I haven't seen it because I haven't been shown it.**
> **MICHAEL DAVIDSON,** CIO, APOTEX INC.

SAP officials said earlier this year that the company is implementing the policy to help smooth users' transition to the next generation of SAP applications, which will incorporate its SOA-based NetWeaver middleware technology.

The company has started to gradually phase in the program for current customers, who will begin to see higher prices in January.

The price increases will eventually reach 22% of a user's software license fees in 2012. The older support packages were priced at up to 17% of license fees.

New customers can only choose the higher-priced option with the 22% fee.

The Enterprise Support package, unveiled in May, includes the installation of SAP's Solution Manager portal at customer sites. The portal will provide the vendor's services personnel with a real-time view of operations across distributed systems.

The package also gives customers access to the Run SAP methodology, which was created to better manage service-oriented architectures.

SAP has so far given no indication that it plans to change the support plan. "While customers are saying they never like to pay more money, they see the additional value," contended SAP spokesman Bill Wohl.

He repeated SAP's earlier claim that the move was made to help the company deal with increasingly complex customer implementations and not simply to drive revenue.

Ray Wang, an analyst at Forrester Research Inc. in Cambridge, Mass., suggested that SAP users work together to determine the value of the new service.

There's a "broad consensus" among Forrester clients that they may have to offer "some concessions" to SAP, "but it's also important to understand what value they may receive," Wang said. "That's a fair discussion." ■

Kanaracus *is a reporter for the IDG News Service.*

COMPUTERWORLD
BUSINESS INTELLIGENCE PERSPECTIVES

Best Practices
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AWARDS PROGRAM

Congratulations to Our Finalists!

The Business Intelligence Perspectives "Best Practices in Business Intelligence" Award Recipients will be honored on Wednesday, September 10th.

Business Intelligence Perspectives proudly presents the "Best Practices in Business Intelligence" Awards Program. This program honors IT user "best practice" case studies selected from a field of qualified finalists.

Finalists in each of the following categories are:

Creating an Agile BI Infrastructure

- Abbott International, Abbott Park, Illinois
- USPS IT Delivery and Retail Business Systems Portfolio, Washington, DC
- Marriott International, Inc., Bethesda, Maryland
- United Network of Organ Sharing, Richmond, Virginia
- USCG, Office of Performance Management and Decision Support, Washington, DC

Driving Process Management with BI

- Coca-Cola Enterprises, Atlanta, Georgia
- FedEx Services, Collierville, Tennessee
- New York City Department of Information Technology and Telecommunications, New York, New York
- The Salvation Army, USA Western Territory, Long Beach, California
- Transportation Security Administration, Arlington, Virginia

Expediting Information Delivery, Retrieval, Reporting and Analysis

- Airlines Reporting Corporation, Arlington, Virginia
- Corporate Express, Broomfield, Colorado
- Cox Enterprises, Inc, Atlanta, Georgia
- Hartford Hospital, Hartford, Connecticut
- USPS IT Delivery and Retail Business Systems Portfolio, Washington, DC

Innovation and Promise in Business Intelligence

- ENI Group, Milan, Italy
- Enterprise Project Office, Chase Paymentech, Dallas, Texas
- GMAC Financial Services, Detroit, Michigan
- Infobright, Stockholm, Sweden
- Maritz Travel, Fenton, Missouri
- Nygard International, Winnipeg, Manitoba

Thank you to our "Best Practices in Business Intelligence" Judges for 2008:

- Greg Backhus, Helzberg Diamond
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- Heather Havenstein, *Computerworld*
- Michael Hibbard, RN, MHSA, Mercy Health Partners
- Erik Johnson, Sabre Holdings
- Julia King, *Computerworld*
- Andrew Kriebel, Coca-Cola Enterprises
- Michael Masciandaro, Rohm and Haas Company
- Matthew Meinert, U.S. Army (C-E LCMC)
- Henry Morris, IDC
- Eric Piersol, Alltech Biotechnology
- Michael Scarbrough, Wells Fargo
- Paul Valle, Papa Gino's, Inc.
- Scott Zimmerman, CenterPoint Properties

Judging Criteria

Judges will evaluate and rank the finalists in each category according to their substantiated Business Intelligence solution attributes and achievements against a set of criteria such as:

- Strategic importance to the business.
- Positive impact on other business/organization units.
- Substantive customer impact (service, retention, acquisition).
- Provides a strategic advantage to the business/organization while anticipating and accommodating the deployment of future Business Intelligence initiatives.
- Financial return and measurable payback (returns on investment, assets, resources) through created/protected revenue opportunities or cost savings.
- Addresses challenges of data, information and application security, etc.

MICHAEL MARSLAND

THE GRILL

Joan Feigenbaum

The **privacy expert** talks about the problem with **encryption**, the need for **'information accountability'** and what's wrong with **role models**.

Dossier

Name: Joan Feigenbaum

Title: Grace Murray Hopper Professor of Computer Science

Organization: Yale University

Location: New Haven, Conn.

Most interesting thing people don't know about her: "I have voted for two Republicans (in local elections, not national ones)."

Role model: "I don't have one, and I don't want one."

Favorite vice: French fries

Pet peeve: "Co-workers who fail to meet deadlines and then don't even feel guilty."

Ask her to do anything but: "Lie."

Joan Feigenbaum's research interests range from the highly technical to the social and legal aspects of privacy and digital copyright. In 2001, she was named a fellow of the Association for Computing Machinery for "foundational and highly influential contributions to cryptographic complexity theory, authorization and trust management, massive-data-stream computation and algorithmic mechanism design." She recently wrote about "information accountability" for Communications of the ACM *magazine.*

You wrote that access controls and encryption, which you call "hide it or lose it" mechanisms, are no longer capable of protecting privacy. Why? The problem with "hide it or lose it" is that people who express the desire for "privacy" often do not mean that they want their sensitive information hidden. Rather, they mean that they want that information to be used appropriately. For example, no one wants the fact that he is a registered voter and a member of the Democratic Party to be hidden from the poll worker who is supposed to put a check next to his name as he walks into the booth to vote in the Democratic primary. Many such voters, however, feel that their privacy has been violated when a Democratic

Continued on page 16

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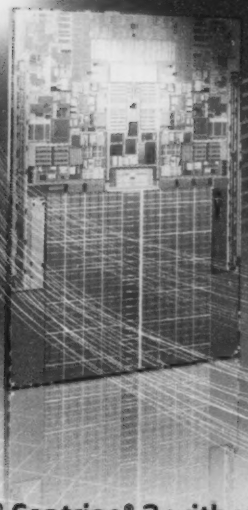

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> “People should not have to give up the benefits of using information appropriately in order to avoid the harms that result when the same information is used inappropriately.

Continued from page 14

fundraiser uses the same information as justification for calling him at home to ask for a donation. People and organizations should not have to give up the benefits of using information appropriately in powerful networked systems in order to avoid the harms that result when the same information is used inappropriately.

Are you saying that the harm usually comes not so much from the disclosure of private information as from its use? Clearly, there are situations in which disclosure of sensitive personal information is considered blameworthy on its face, regardless of the use that is subsequently made of that information. Many people disapprove very strongly when someone talks about details of another person’s sex life, for example.

Laws as well as social conventions recognize the appropriateness of secrecy. But those situations are not the interesting ones from a technological perspective. If a particular fact is truly secret, then it’s clear what to do: Either do not create an electronic record of that fact or, if you must, encrypt that electronic record.

Technologically, it is much less clear how to handle sensitive information that can and should be disclosed, perhaps to many parties, so that it can be put to beneficial use, but still prevent that information from being put to harmful use. For example, how do we make our consumer preferences available to companies that can use them to improve products but not enable ever more annoying targeted marketing? The challenge is to support appropriate use of sensitive information, not to prevent all use by preventing disclosure.

You cite as an example of information accountability the Fair Credit Reporting Act [FCRA], which does not limit the collection of credit data but restricts how it may be used. We could make a great deal of progress toward accountability by facing up to something that many people find counterintuitive: By empowering one or more organizations to collect vast amounts of sensitive information about people while precisely specifying both the types of information collected and the purposes for which the information can be used, we can provide better protection against abuse of sensitive information than we can by constantly warning people to “hide it or lose it.”

In exchange for the right to collect and use certain types of personal data, such as credit or medical information, the organizations must agree both to observing the usage rules and to being monitored for compliance with the rules, and they must give data subjects the rights to ensure accuracy of the data and to obtain explanations of decisions made on the basis of that data.

So could the principles behind the FCRA be more widely deployed? Absolutely. It would be nice to deploy that more widely. But the whole operating principle behind FCRA is that it would be difficult for the act to be violated invisibly. So the potential Achilles’ heel is it assumes that the parties that use the information could actually be monitored. This can be very hard. How can you monitor the use of copyrighted material, for example?

What are your views in the controversy over Net neutrality? I have not yet heard a good definition of the term *Net neutrality*. That’s one of the reasons that so much of the discussion about it has been unproductive. I wish that the Net neutrality advocates would start by stating the problem that Net neutrality solves. Some of them seem to think that there should be a strict separation between the communication function served by Internet service providers and the information-publishing function — that the proper analogy for a modern ISP is a traditional phone company governed by common-carriage laws, rather than a traditional cable TV company that controls both communication and content.

But what should be required, first and foremost, is that service providers be completely upfront with their customers. They shouldn’t imply to their customers that they will be able to use some popular application like BitTorrent, then not actually let them do that. I think it would be great if there were old-fashioned, common-carrier-style ISPs that did no content discrimination whatsoever, but be aware that there are a lot of customers who don’t want that.

You have said you don’t like role models. Why? I don’t like the word *role* because it gives the wrong impression that for each person, there’s an established path to follow. Each person should seek to live a life, not to play a role. Second, I don’t like the word *model* because it gives the impression that if you admire someone, you should try to be like him. I think that’s bad advice. A person might be very accomplished and therefore worthy of admiration, but totally unlike you emotionally and psychologically. Modeling your life after his won’t work.

— *Interview by* **Gary Anthes**

■ OPINION

Thornton A. May

Technology Adoption 2.0

THE MOST BROKEN PROCESS in enterprises today is the Byzantine mendicancy, sycophancy and outright idiocy associated with introducing new technology. If you don't believe me, ask any Jack or Jill in the cubicles to rank the various silo captains for innovativeness. The CIO, and his IT organization, will trail the pack.

We need a forklift upgrade on how new technology enters the organization. We need to demand Technology Adoption 2.0.

Running a Six Sigma digital factory is no longer good enough. If IT is to maintain (or obtain) a seat at the big table, it needs to do more than keep the digital lights on. It needs to explain, socialize and then deploy a charismatic and value-exuding portfolio of emerging technologies.

Why is technology adoption so hard? CIOs and the organizations they lead have rarely, if ever, been in front of the curve. We missed minicomputers, we lagged on PCs, we were anti-Web, we were bum-rushed by mobility, and we are now accused of being slow on the uptake of Web 2.0 technologies like Facebook, wikis and blogs. We are of the Nancy Reagan school of technology management: We just say no. Are we destined to always be the wet blanket on technology-enabled opportunities?

Perhaps the technology adoption problem is genetic. Paul R. and Anne H. Ehrlich, authors of *The Dominant Animal: Human Evolution and the Environment*, observe that our just-out-of-the-trees ancestors evolved decision-making algorithms designed to respond to *sudden* changes in the environment. Our prehistoric ancestors passed on their genes because they were the ones who quickly reacted to hungry predators. Thus, the Ehrlichs argue, we are genetically predisposed for short-term, easy-to-quantify investments.

But the world has changed, and we have to evolve to meet the new realities of nonlinear predators — or competitors. What sets us apart from the lower orders is not our ability to communicate, create tools or collaborate. It is the ability to simultaneously entertain, evaluate and imaginatively inhabit multiple future worlds. Successful executives will need to excel at the art of futuring.

■ Is IT destined to always be the wet blanket on technology-enabled opportunities?

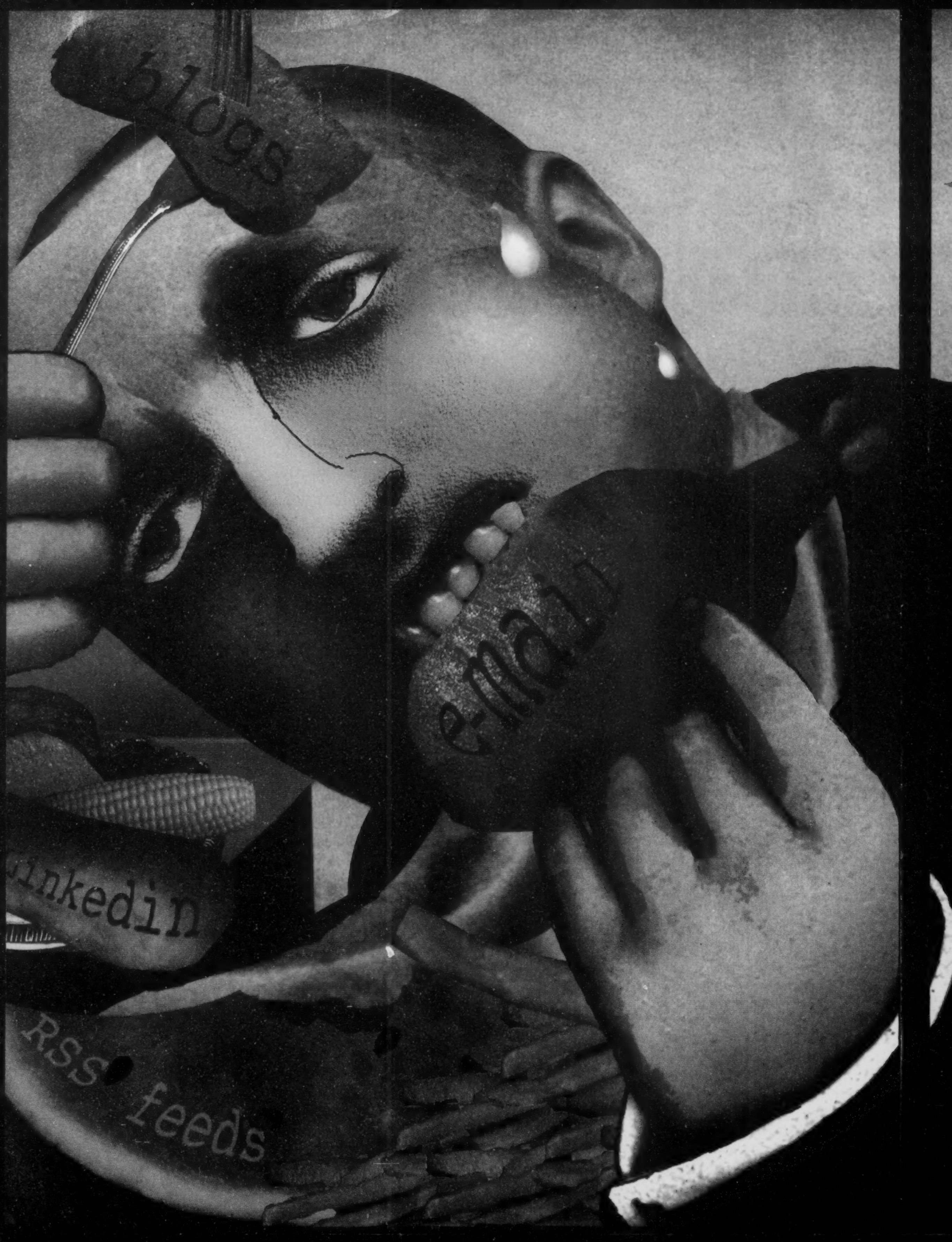
Or perhaps the technology adoption problem is systemic. Paul Saffo, an insightful forecaster at the Institute for the Future, observes, "The amount of time required for new ideas to fully seep into a culture consistently has averaged three decades." Can't we accelerate this process? Must we wait patiently for the vendors to come up with the technologies we need? Is the technology future truly unpredictable?

Ray Kurzweil, whose many achievements include writing *The Singularity Is Near: When Humans Transcend Biology*, argues that "the overall progression of information technologies is remarkably predictable. The price-performance of computing has grown at a remarkably smooth, doubly exponential pace for over a century, going back to the data processing equipment used in the 1890 U.S. Census."

The stuff that is happening in labs around the world is invisible to most CIOs. We need to stop talking to vendors about what they have on the back of the truck and start having discussions about the technology they have on the drawing boards that will create a sustainable competitive advantage.

We need to create landing zones for near-term technologies, sandboxes for farther-out technologies and co-development labs for way-out-there technologies. We need to recapture the can-do attitude that placed a man on the moon. We live in a world soon to be populated with petaflop (1,000 trillion calculations per second), exaflop, zettaflop, yottaflop and xeraflop supercomputers. With this kind of technology waiting in the wings, upgrading to Technology Adoption 2.0 is not optional. ■

Thornton A. May *is a longtime industry observer, management consultant and commentator. You can contact him at thorntonamay@aol.com.*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MICHAEL MORGENSTERN

Information OVERLOAD

Is it time to go on a data diet?

BY MARY BRANDEL

CIO JEFF SAPER drives a hybrid car, favors service providers that use alternative energy and has launched many green IT initiatives at his strategic communications firm, Robinson Lerer & Montgomery LLC in New York. But he's also concerned about a type of pollution that even Al Gore has yet to tackle: digital pollution.

The recent growth of information sources such as blogs, social networks, news aggregators, microblogs like Twitter, instant messaging and e-mail has been exponential. And with broadband penetration among active Internet users expected to break 90% this year, according to Internet marketing firm Website Optimization LLC, there aren't many people today who haven't experienced some form of information overload.

"On the positive side, there's so much more information available," Saper says. "But it becomes overwhelming, especially for those unfamiliar with the tools to filter through it."

The idea of "information overload" has been discussed for decades, but never before has it seemed so relevant. Today, ideas and discussions are broadcast not at a prescribed time on a specific channel via a single medium, but all the time, on millions of forums, discussion groups, blogs and social networks. And they occupy a growing piece of our consciousness, thanks to RSS feeds, Twitter messages, mailing list and newsletter subscriptions, instant messaging, e-mail and Web surfing.

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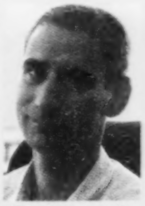

> **"There's so much more information available, but it becomes overwhelming, especially for those unfamiliar with the tools to filter through it.**
>
> **JEFF SAPER,** CIO,
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“The river of content is turning into a flood, and my instinct is to get to higher ground.

STEVE BORSCH, CEO, MARKETING DIRECTIONS INC.

Continued from page 19

According to market research firm IDC, by 2011 the digital universe will be 10 times the size it was in 2006.

It’s gotten to the point where information — which should be useful — has in some cases become a distraction. According to New York-based research firm Basex Inc., information overload is the “problem of the year.” Basex claims that disruptions caused by e-mail, text messages and other incoming data cost large organizations billions of dollars annually in lower productivity and hampered innovation.

Disruption comes in many forms. There’s the urgent e-mail that arrives when you’re heads-down on a project, the scads of stuff to browse through to make sure you’re not missing anything relevant, and the temptation to scan your RSS feed during conference calls.

“For so long, companies have preached the importance of multitasking,” says Michael Fowler, IT director of risk, compliance and change management at Constellation Energy Group Inc. But now, he says, the pendulum has swung back: “What happens when you’re too multitasked?”

Many worry about missing out on something. “People fear a disruptive technology or business model will come on the scene and they won’t have time to act,” says Steve Borsch, CEO of Marketing Directions Inc., a consulting firm in Eden Prairie, Minn. “It’s becoming exponentially more difficult to tap into the collective consciousness and stay on top of changes in an industry or area of interest, or even stay relevant in the workplace.”

He admits to struggling. “I now am skimming and reading articles on dozens of news sites and technology journals, clicking on sources linked to by a blogger, and a whole lot more,” Borsch says. “The river of content is turning into a flood, and my instinct is to get to higher ground.”

IT professionals and information management specialists say that higher ground can be reached. Some use technology to combat the information overload, while others suggest putting yourself on an information diet and taking control over how much you allow yourself to be exposed to.

TURNING TO TECHNOLOGY

Borsch firmly subscribes to the belief that what technology has gotten us into, it can get us out of. He has studied customizable RSS feeds and “smart” news-aggregation sites that allow him to choose the types of news he wants to see as well as submit content and vote on items to promote their visibility.

On his PC, Borsch has arranged his browser into about a dozen workspaces. Three are always open for e-mail, the Google Reader RSS feed and three news aggregation sites: Techmeme for technology news, Blogrunner for general news and Wikio for global coverage.

Techmeme not only aggregates links to technology stories but also provides a visual sense of how important each story is through a list of links to the discussions each generated. If the list is long, Borsch says, he knows he should pay attention to that item. Similarly, compilation sites like Digg and Hackernews use social promotion techniques to help readers discern what’s important. As readers vote on items, the most popular get more visibility.

Borsch says he has spent lots of time customizing Google Reader, editing what he wants to see and organizing how he sees it. He has created 20 folders for topics such as venture capital, video, technology, marketing/public relations, virtual worlds and gadgets. One is labeled “above the fold,” for the 15 blogs that he considers must-reads, including Boing Boing. That feed pulls information from 171 blogs and various other sites, for a total of about 225 feeds. On one recent day, Borsch had 926 articles waiting for him. “I’ll probably grab a sandwich and skim through them all, unless I get hooked into an article that burns up all my time,” he says.

Still, the RSS feeder does save time. “It might take me a minute to scroll through the posts, but if I went to [each] site itself, it would take 45 seconds just to load the page,” he says.

With all the time he spends on aggregation sites and his RSS feed, Borsch says he has reduced his investments in books, TV, newspapers and magazines. He’s even cut down on his podcast listening time. At one point, Borsch says, he’d collected 36 hours’ worth of weekly podcasts with only 10 hours per week available to listen. But with the aggregation sites, he says, “it feels like I’ve got people’s thoughts at my fingertips, and to me, that’s fabulous.”

“If it weren’t for RSS readers, I’d be dead,” Borsch says.

Saper also uses aggregators to battle information overload. His favorites are Newsgator and Flock, which he says is a combined browser and aggregator. He says that Flock can aggregate all his social networking activity and feeds into one place. He subscribes to about 40 sources, with topics such as Micro-

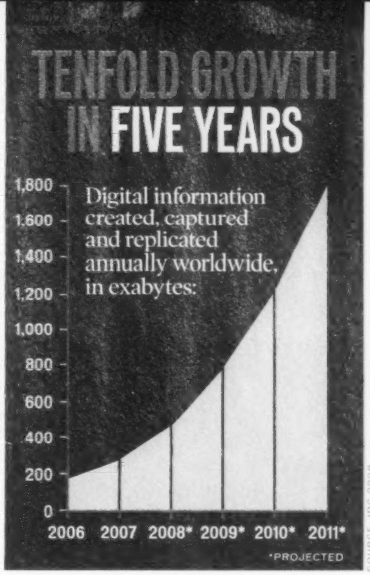
How IT Can Help

ANYONE with an Internet connection is susceptible to information overload, and IT can play a central role in helping an organization handle it. Here are two low-cost but high-impact approaches:

Smarten up the tools. Help your users learn to drill down into the intelligent features in sites like Digg and Delicious, says Jeff Saper, CIO at Robinson Lerer & Montgomery. His group holds numerous discussions and lunch meetings to teach employees how to use Digg and customize their RSS feeds.

Pull, don’t push. Allow employees to opt into information. At Constellation Energy, Michael Fowler, IT director of risk, compliance and change management, is working to change current practices. Rather than sending out reports by e-mail, the company should enable users to choose which reports they want to receive through an RSS feed, he says. Not only would this save bandwidth and disk space, but it also would free up people’s minds. “Why do you need 300 reports in your in-box?” Fowler asks.

– MARY BRANDEL



TENFOLD GROWTH IN FIVE YEARS

Digital information created, captured and replicated annually worldwide, in exabytes:

*PROJECTED

SOURCE: IDC 2008

soft, virtualization, mobile technology, networking, environment, public relations and general business.

"Do I read every hit? No," Borsch says. "It gets back to there being too much noise out there."

But tools can't do it all, he says. With new sources of information appearing every day, it's difficult to know which are legitimate. That has driven Saper to be more discerning about which sources he trusts. Mainly, he says, he sticks with sources he knows or those that are recommended by peers or friends.

Ole Eichhorn, chief technology officer at Aperio Technologies Inc., which provides systems for digital pathology, agrees. His No. 1 way of finding new blogs is by referrals, sometimes through his own blog. Once a week, he checks to see who has linked to his blog, which inevitably leads him to look at theirs. "They found me, so there must be a similarity of interest," he says.

The human touch can, of course, be automated, Fowler says. Although he seeks recommendations from peers and friends and uses social promotion sites like Digg, he has also found a shortcut: using Delicious, a social bookmarks manager. He marks favorite items on the site, but he also checks out the bookmarks of other people he trusts or those who specialize in areas of interest to him. "I'd expect them to have found the top sources, so why search?" he says. "I can just go to their Delicious site."

STEP AWAY FROM THE INTERNET

Fowler uses an RSS feed to keep on top of about a dozen sources from tech news, and to follow a local newspaper columnist who often writes about Constellation Energy. But he doesn't check them daily, and he purposefully limits the number he follows because much of the news gets repeated. "Less is more, at least for me," he says.

The less-is-more mantra may be the key to combating information overload. Mark Hurst, author of *Bit Literacy* (Good Experience Press, 2007), says technology tools simply can't scale up to the amount of information coming at us. So rather than using an RSS feed to subscribe to 200 blogs, he says, why not identify the three or four top blogs you really want to read each day and read them? It takes mental discipline to resist the rest, but it enables you to "get to zero" — the point where there's nothing pending in your in-box.

"If overload is the problem, the solution is to unload," Hurst says.

The urge to unload may be taking hold. The WebWorkerDaily.com blog lists 21 tips to deal with information overload, including forsaking forums and having a Web-free day. There are even life coaches who specialize in reducing such overload.

For Borsch, mental discipline means he unsubscribes from any blog that is no longer adding value. And when he needs to concentrate on work, he closes down instant messaging, Skype and e-mail, turns off Twirl (the Twitter desktop client), and tries not to think about what he's missing.

Mental discipline is especially important when it comes to e-mail. Many people feel compelled to check e-mail throughout the day and to respond immediately to what comes in. "You can be on deadline, and one of your friends sends you a random note that you could read two hours later, but knowing it's there disrupts you," Eichhorn says.

He offers a solution: "Just because someone sent you something doesn't mean you have to read it. Thinking that way is empowering."

> **"Just because someone sent you something doesn't mean you have to read it.**
>
> **OLE EICHHORN,** CTO, APERIO TECHNOLOGIES

The same goes for RSS feeds. Although Eichhorn loves RSS and monitors 300 to 400 feeds via a reader called Sharpreader, he calls it an incredible distraction. He estimates that he gets 2,000 to 3,000 items per day and reads about one out of 20. His advice: Choose specific times throughout the day to check e-mail and read your feed. Otherwise, he says, you could lose an entire day in the ether.

Fowler says he gets 1,500 e-mails per day at work, thanks in part to coworkers mailing to distribution lists. Handling this requires setting up rules and filters through the e-mail system itself, he says, but he'd like to see these types of features become more intuitive.

"We'd be far more efficient if we taught people to direct the message to the person who could best handle the inquiry," he says. But Fowler admits that in a global company that operates around the clock, that person is not always easy to pinpoint.

Fowler has come to like Twitter, which limits messages to 140 characters. He mainly uses it to stay connected with other people via his group distribution list and to stay abreast of their activities. However, services such as CNN also broadcast news on Twitter, and some industry leaders have begun using it to communicate updates at conferences and boot camps. "The reason I like it is that it's short," Fowler says. "I don't have time for a novel; 140 characters is my attention span."

Eichhorn agrees that following Twitter is becoming more important. Originally, he says, the idea was "What are you doing?" but it has evolved to, "What are you thinking?"

Information overload is not going away, and organizations will need to find ways to deal with it, particularly when it comes to determining which sources are considered reliable, says David Newman, an analyst at Gartner Inc.

"I don't think we understand how bad it's going to get, especially as more young people come into the workplace and are used to using these sources in their personal lives," he says. "We can't put our head in the sand about this." ■

Brandel *is a* Computerworld *contributing writer in Newton, Mass. Contact her at marybrandel@verizon.net.*

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FIVE WAYS [To Drive Your Best Workers Out the Door]

LISTEN UP, MANAGERS: Employees don't quit the job; they quit you.

By Mary K. Pratt

MANAGERS' REALITY CHECK: Your top workers can almost always get another job, even in a shaky economy.

"The best employees are being recruited at any given time. Managers need to make that assumption and create an environment that's going to make them want to stay," says Paul De Young, a talent management practice leader at Watson Wyatt Worldwide Inc., a global consulting firm.

Are you really doing that? Or do your management tactics have people scurrying for the exits? Before you answer, consider these cautionary tales that can help you avoid pushing your own top talent out the door.

MISTAKE NO. 1: KEEP THE CREATIVE JUICES BOTTLED UP.

"Programmers and developers have their own views — reasonably strong views — on how to do things, so it's not uncommon to hear that there are clashes between them and managers," says Pradeep K. Khosla, founding director of CyLab and dean of the College of Engineering, both at Carnegie Mellon University in Pittsburgh.

Khosla points to an acquaintance who quit his programming job because he wasn't allowed to pursue his ideas about the IT architecture he thought the company needed.

THE BETTER WAY: Even the most talented workers won't get their way all the time, but managers need to balance employees' creative ideas against corporate policies and programs.

"The organization has to create a culture from the top management down that gives people an opportunity to be

IMAGE © FOTOLIA

creative," De Young says.

And though most companies can't adopt a model like Google Inc.'s, which lets engineers spend 20% of their time pursuing their own projects (see related story, page 34), De Young says many can and should allow their top staffers some time away from their normal duties to delve into projects that stretch their imaginations.

Adrian M. Butler

Franz Fruehwald

MISTAKE NO. 2: MICROMANAGE YOUR STAFF.

It's hard to imagine the founding executives at a $1 billion company demanding that they approve all IT expenditures over $1,000, checking employees' time sheets and requiring retention agreements for workers seeking job-related training.

But Adrian M. Butler, vice president of IT-telecom and support services at Accor North America Inc. in Carrollton, Texas, knows an IT director who found himself working for those executives.

The tight management control was a clear and extreme case of micromanagement. "It led people to feel there was a lack of trust in their abilities," Butler says, noting that the IT director left his job after just two months.

"He didn't feel empowered in the role," Butler says, adding that the manager who hired the IT director also left for similar reasons.

THE BETTER WAY: This problem is tough because the tendency to micromanage is more a personality trait than a policy decision, says Franz Fruehwald, CIO at Catholic Human Services-Archdiocese of Philadelphia. He has also experienced that type of manager in the past.

But if you solicit honest feedback from close associates, you can recognize and curtail micromanaging behavior in yourself, he says. "I have a couple of direct reports who have the ability and permission to speak to me frankly," Fruehwald says. "I tell them, 'You need to give it to me straight.' "

MISTAKE NO. 3: DENY NEW OPPORTUNITIES AND CHALLENGES.

As a facilitator for the Regional Leadership Forum, a development program run by the Society for Information Management, Bart Bolton sees many promising IT workers. In fact, most who attend the nine-month program are sponsored by their organizations because they're considered high-potential employees.

But not all companies know how to manage such workers. Bolton remembers one senior IT manager who found that his boss wasn't willing to give him new opportunities after he completed the program.

"He wanted more challenges and more responsibility. They talked about it, and nothing happened," says Bolton, who is also a leadership consultant at Lifetime Learning in Upton, Mass.

The manager didn't stick around. Within a few months, he found a new position at another company where he felt he had more opportunities to grow.

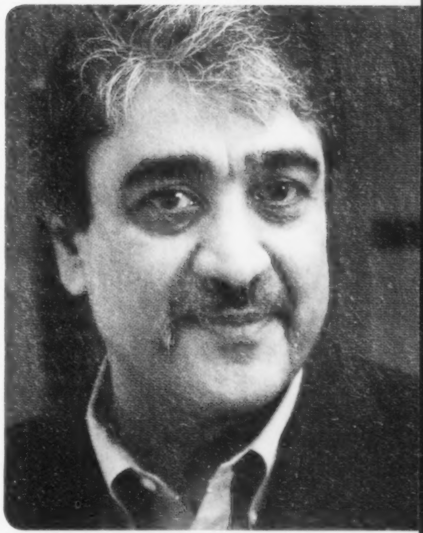
THE BETTER WAY: Set realistic expectations, says Anne Marie Messier, founder of Straightline Management Solutions in Chelmsford, Mass. Tell workers why they're being sent for training and what they can expect once the training is completed. If you don't have immediate opportunities for advancement, letting enthusiastic workers know that

Continued on page 30

GOOD HELP IS HARD TO FIND

64%	Percentage of U.S. employers that have problems attracting critical-skill employees.
60%	Percentage of employers that have trouble finding top-performing workers.

SOURCE: WATSON WYATT WORLDWIDE'S 2007/2008 GLOBAL STRATEGIC REWARDS REPORT



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> FOUNDING DIRECTOR OF CYLAB AND DEAN OF THE COLLEGE OF ENGINEERING, CARNEGIE MELLON UNIVERSITY

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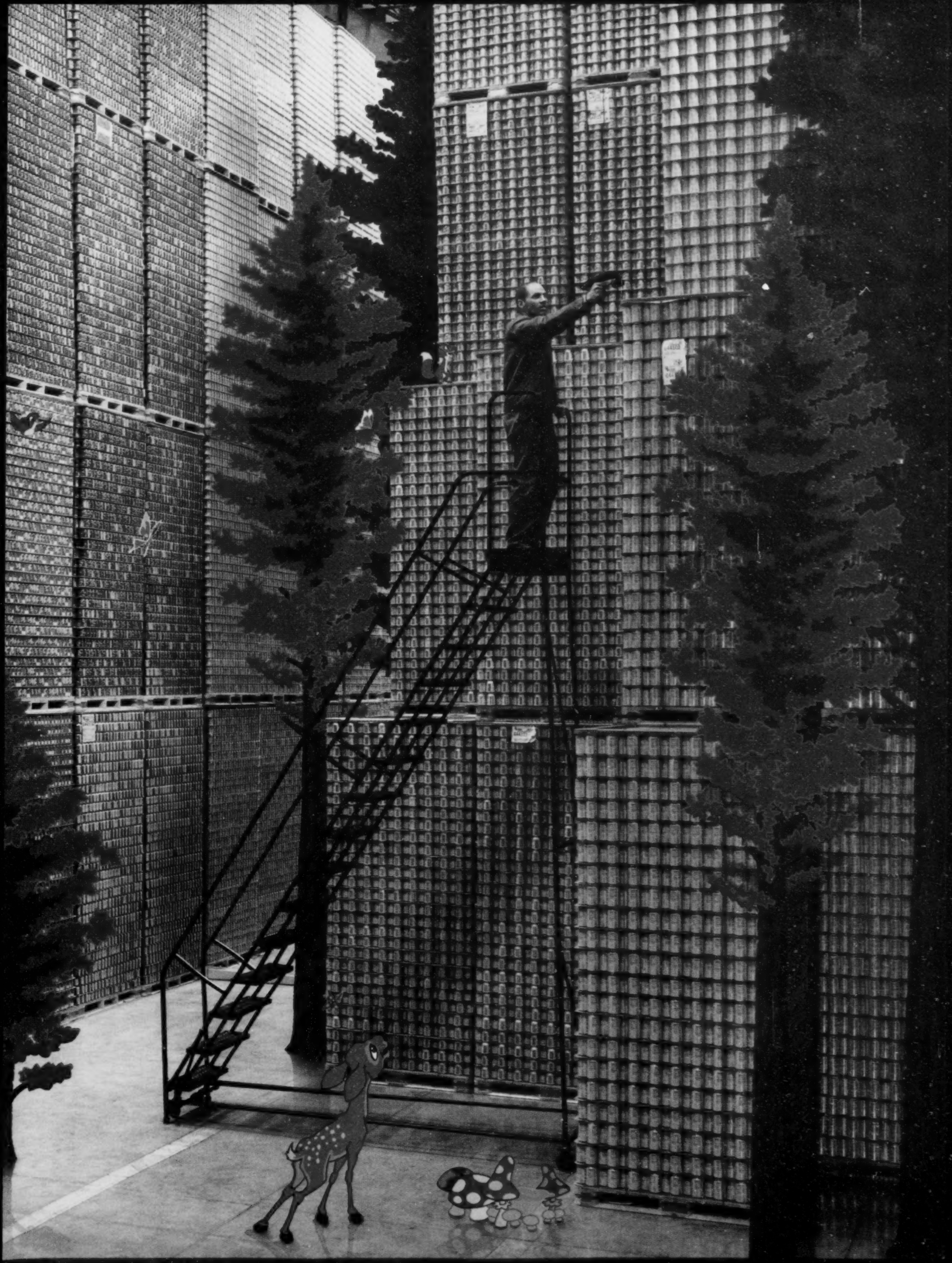


> **“We hire people that we believe can do the job. If we don’t allow them to use all the tools in their toolbox, or we try to pigeonhole people into doing it the way we’ve always done it, then we’re doing a disservice to the individual, the team and the organization.**
>
> **BEN BERRY**, CIO,
> OREGON DEPARTMENT OF TRANSPORTATION

Continued from page 27

they are on the short list for new challenges can go far in retaining them. But be sure to follow through.

MISTAKE NO. 4: DON’T LISTEN TO YOUR EMPLOYEES.

As a senior systems analyst working on a team to develop clinical and business applications at a hospital, Ben Berry worked with a medical doctor to determine business requirements for the entire institution.

Although he and the doctor shared responsibility for the task, Berry remembers that the doctor didn’t want to hear anyone else’s ideas. “He didn’t take input from the team. He was trying to drive all the decisions. It was undermining the team, and I personally felt underutilized,” says Berry, who is now CIO for the Oregon Department of Transportation.

Berry discussed the situation with his supervisor and the doctor directly. But nothing changed, so he left for a better position.

THE BETTER WAY: Use all the talent around you. “We hire people that we believe can do the job,” Berry says. “If we don’t allow them to use all the tools in their toolbox, or we try to pigeonhole people into doing it the way we’ve always done it, then we’re doing a disservice to the individual, the team and the organization.”

Open-door policies and consensus-building allow all staffers to contribute and voice their opinions, he says.

MISTAKE NO. 5: CHANGE THE WORK ENVIRONMENT WITHOUT CONSIDERING THE IMPACT ON EMPLOYEES.

When a national retailing company outsourced its IT operations and most of its business analysts, it learned how the talented workers who are left behind typically react: They bolt.

Bob Rouse, a professor of computer science and IT planning officer at the Washington University School of Medicine in St. Louis, knows the story. The outsourcing reduced the company drastically — from about 2,500 IT employees to 1,000, he says. The remaining employees handled more work and different work than they had been doing. Moreover, many of the best employees had gone to the outsourcer, and because the surviving top-notch workers found themselves working with a weaker internal team, they had to pick up even more of the slack.

As a result, the company lost 10% of its top people within a year. “These were very marketable people who would never have considered leaving the company if it hadn’t been [for the] outsourcing,” Rouse says.

THE BETTER WAY: Keep the people in the business equation. Companies often focus on business objectives and financial goals when making tactical moves and forget that “there are human beings left behind,” says Bob Eubank, executive director of the Northeast Human Resources Association in Wellesley, Mass.

To avoid an exodus of top performers after a change, executives and managers should tell workers about impending events as early as possible, Eubank says. Managers should be particularly attentive to their best workers, letting them know about postchange opportunities. If employees see opportunities down the road, he adds, “people are often willing to sacrifice.” ■

Pratt *is a* Computerworld *contributing writer in Waltham, Mass. Contact her at marykpratt@verizon.net.*

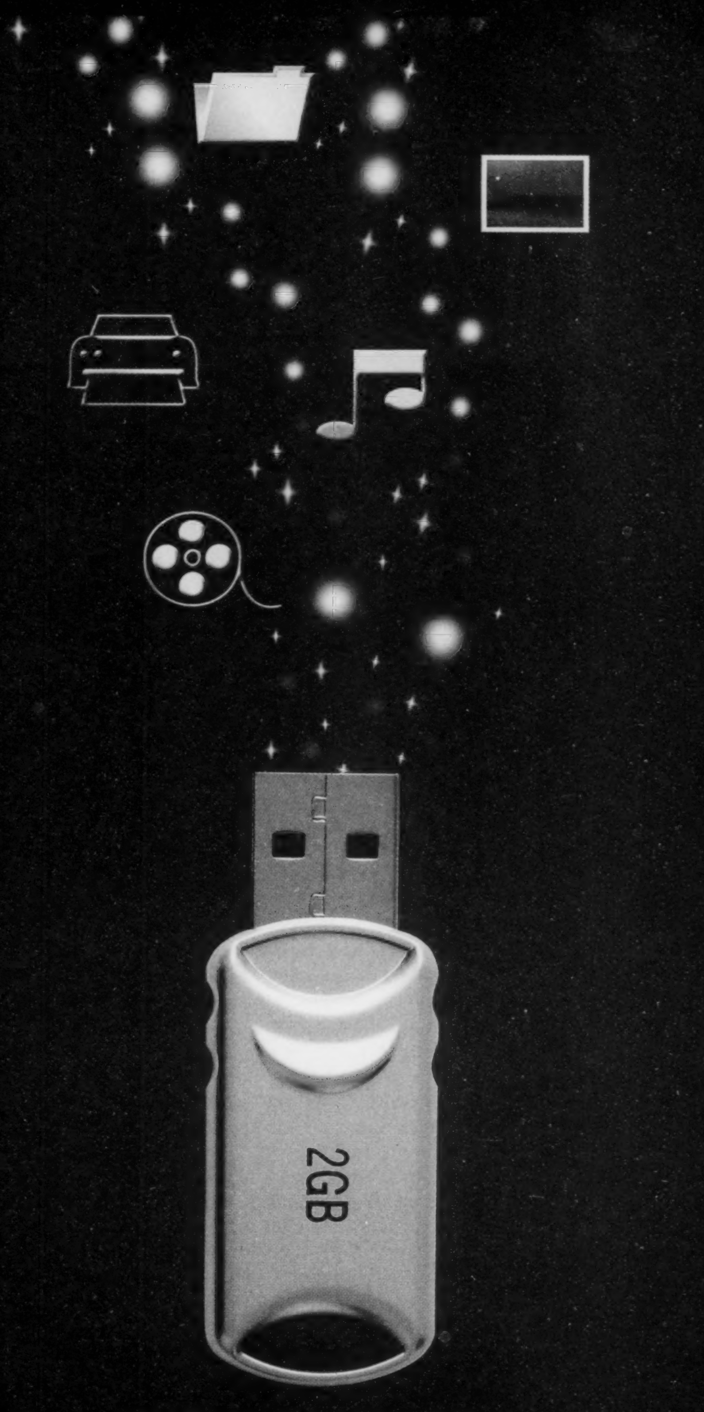
TRIED-AND-TRUE TACTICS

When CIOs reported on their most effective tools for IT staff retention, these were among those most often cited:

Increased compensation	27%
Professional development/training	21%
Flexible schedule options	18%
Telecommuting	7%
Extra time off	6%

Base: April 2008 survey of more than 1,400 CIOs at U.S. companies with 100 or more employees

SOURCE: ROBERT HALF TECHNOLOGY



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Not All USB Drives Are Created Equal

Casual users won't care, but if your storage mission is critical, listen up.

By Robert L. Scheier

MOST USB 2.0 flash drives look the same, but that doesn't mean they perform the same.

Differences in the type of memory and, to a lesser extent, the type of I/O controllers used by USB drives can make one device perform two or three times faster and (theoretically, at least) last 10 times longer than another, even if both sport the USB 2.0 logo.

Unfortunately for the average user, there are no accepted industry standards or certifications to judge what's inside a USB 2.0 flash drive on a store shelf. Aside from checking reviews or running benchmarks, the only rule of thumb is that the more expensive drives (and those with their performance numbers on their packaging) tend to be the fastest and, perhaps, the ones that last the longest.

The casual user may never notice a difference. "For the average user moving around a few files, or even 20 to 50MB of data, a slower drive is probably sufficient," says Cameron Crandall, a technology manager at memory vendor Kingston Technology Corp.

And although the memory in less-expensive drives has a shorter life span than that in more-expensive drives, it's long enough to last the lifetime of the drive for an average user.

But these differences can matter if you're storing large amounts of data, using the drives to store critical information or using a USB drive to supplement system memory via the ReadyBoost feature in Windows Vista.

PERFORMANCE FACTORS

The USB 2.0 standard supports a maximum throughput of 60MB/sec., although "nobody's pushing that limit" with the flash memory used in current USB drives, says Pat Wilkison, vice president of marketing and business development at Stec Inc., a Santa Ana, Calif., manufacturer of memory and storage products.

The single biggest factor in USB drive performance is whether it contains one of two types of memory: SLC (single-level cell) or MLC (multilevel cell). SLC stores one bit in each memory cell, and MLC stores two bits in each cell.

SLC is twice as fast as MLC, with maximum read speeds of about 14MB/sec. and write speeds of about 10- to 12MB/sec., says Wilkison. Almost all current USB flash drives are built using MLC memory, however, since it costs about half as much as SLC.

Users would see the greatest performance difference between SLC and MLC if they were carrying out many operations involving small files rather than relatively few read/write operations on larger files, says John Whaley, principal engineer at MokaFive Inc. His company's virtualization software makes it possible for virtual machines to be stored on USB flash drives.

What's Next?

In the first half of 2009, controller manufacturers will begin shipping drives with dual- and even four-channel controllers, says Pat Wilkison, vice president of marketing and business development at Stec, a manufacturer of memory and storage products.

That will increase speeds even for slower MLC memory by increasing the number of lanes through which data can be written to and from the memory cells.

USB drives combining four-channel controllers with MLC memory will reach speeds of about 60MB/sec. for reads and 30MB/sec. for writes, coming closer to – but not quite – saturating the USB 2.0 interface.

– ROBERT L. SCHEIER

SLC memory also lasts about 10 times as long as MLC, says Crandall, which means one cell in an SLC-based USB drive should last for about 100,000 cycles of writing and erasing data before it fails. This difference won't concern most users.

HAVE YOUR SAY

How important is the speed of your USB drive?

"If you save a file out to your USB drive and use 100 bytes, you're probably not going to write to those same 100 bytes again for a long time, unless for some reason you decide to delete that file or change it," says Crandall.

As a result, the usable lifetime of the device will extend long beyond the customary five-year warranty, says Mike Sager, vice president of public relations at Kingston.

When USB drives do begin to fail, they do so one cell at a time, not across the board, says Crandall. This is why Wilkison says that an SLC-based drive might be worthwhile for a user who stores a virtual machine on a flash drive to restore a system after a disaster, for example. If the drive began to fail, dropped bits might not be noticed in a photo or music track, but if they disappeared from a key part of an operating system, that could cause a crash.

There are features in the I/O controller that can boost performance in USB drives as well. One is the use of multiple channels to simultaneously move data to and from memory, says Brad Anderson, director of product marketing at USB flash drive vendor Lexar Media Inc. Another, he says, is interleaving, which intermixes data flows to and from multiple flash memory chips within the drive to ensure that the channel is used to its maximum potential.

It's difficult for consumers to determine which I/O controller is used in a specific drive and which features it provides, but this is true of many design details. Most users will have to extrapolate from the speed of the drive what type of controller is in it, Wilkison says.

NO STANDARD

Right now, the best indicator of SLC or MLC memory is price. The more expensive the drive, the more likely it is to have been built using SLC.

There is one way to judge the quality of a drive besides the price: the Windows ReadyBoost logo, which indicates that the flash drive can be used to supplement system RAM and thus speed the performance of Windows Vista-equipped PCs.

The minimum specifications for Windows ReadyBoost are just 2.5MB/sec. for random reads of 4KB of data, and 1.75MB/sec. for random writes of 512KB of data, however, which Crandall says are typical of lower-priced and lower-speed USB flash drives.

Customers who want the maximum benefit from Windows ReadyBoost should opt for a USB drive that is marketed as a high-performance device and probably priced at the high end of the middle range for its capacity.

For the average user, for whom price is more important than speed or reliability, any reasonably priced USB drive should do. If speed or longer life is critical, however, look for drives advertised as high-performance, do your research online and expect to spend more.

But even then, you can't be absolutely sure you're getting more speed for your money. ■

Scheier *is a freelance technology writer based in Boylston, Mass. He can be reached at bob@scheierassociates.com.*

Taking on the DNS Flaw From the Road

A problem like the **DNS cache-poisoning vulnerability** can't wait for our manager to **return from China.**

Trouble Ticket

ISSUE: Even when you're overseas, some problems need immediate attention.

ACTION PLAN: Educate yourself fast, and give the folks at home a decision.

I WAS ON THE ROAD when the DNS cache-poisoning vulnerability hit. Since "on the road" for me can mean being on the other side of the world, it was good to see that I could effectively address this potentially serious problem while thousands of miles from home.

My travels took me to Hong Kong, mainland China and Germany. My company's recent acquisitions have given us facilities in all three locations, and I always seek to ensure that tying new facilities to our corporate network won't introduce vulnerabilities. The connection itself is simple enough — we simply order an MPLS circuit or establish a point-to-point VPN — but I won't give my OK without first checking things out.

I typically ensure that desktop PCs and servers are running antivirus software and that they're up to date with patches. Then I check out how employees, partners, suppliers and other business affiliates are given remote access. This usually includes a systematic review of firewalls, VPN concentrators and any other devices that control access.

Then there's the question of intellectual property protection. That one's very important — after all, it's usually a company's IP that made us want to acquire it. Finally, I turn my attention to physical security: badge systems, doors, cameras, alarms and security guards.

I was in the midst of all of that when I received an e-mail from the IT department asking for my opinion on the DNS cache-poisoning vulnerability. Having been busy with my review of the facilities (not to mention the logistics of travel itself), I wasn't up to speed on the issue, so I went online and read some of the reports. What I learned was that a vulnerability had been identified that could allow a malicious user to replace legitimate Domain Name System entries with bogus addresses. This is not a new style of vulnerability; the DNS has had its share of security issues, most of them involving either a denial of service or a cache poisoning, as in this case.

■ If my decision caused any grumbling, I was too far away to hear it.

IS THE THREAT REAL?

Our IT operations team is responsible for monitoring and assessing the risk of all reported vulnerabilities. It's a good idea to assess the risks before taking action. Some reports of vulnerabilities are merely false positives, and sometimes we can opt out of the remediation because we aren't running a vulnerable version of the operating system or application in question, or we just don't have any vulnerable infrastructure. Then you have to consider the availability of exploit code.

If there are no published exploits, we typically keep an eye out for updates rather than jumping to patch our infrastructure. After all, patching and updating critical servers and applications is a risky business. If the patches aren't properly tested, we could render various applications or devices useless. And any disruption to business operations could affect company revenue, which we don't want on our heads.

This time, it was obvious that we would need to take action. Exploit code had been made available on the Internet, and some colleagues warned me that it was capable of disruption. What's more, all the major DNS application providers, from Microsoft to the Internet Systems Consortium, had published patches and alerts. We also had to think about how ignoring this problem would affect customers, since we have DNS servers within our DMZ that serve domain information to them.

So, from the other side of the world, I gave my opinion: We had to fix the problem quickly, even though upgrading some DNS applications would be a fairly intensive process. If there was any grumbling, though, I was too far away to hear it. I was able to turn my attention back to the work at hand. ■

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This week's journal is written by a real security manager, **"Mathias Thurman,"** *whose name and employer have been disguised for obvious reasons. Contact him at mathias_thurman@yahoo.com.*

OPINION

Preston Gralla

Why Google Has Lost Its Mojo

GOOGLE has gone from innovative upstart to fat-and-happy industry leader in what seems like record time. Put simply, the search giant has lost its mojo. That's good news for Microsoft, and it could affect how you use Google's cloud computing services.

Google looks as if it's on top of the world right now, holding an ever-increasing lion's share of the search market. So why do I think it's lost its mojo? Let's start with the way it treats its employees. Google's largesse has been legendary — free food, liberal maternity and parental leave, onsite massages, fitness classes and even oil changes.

But according to a recent *New York Times* article, those days may be gone. Google recently doubled the price of its company-run day care, and when employees grumbled, top execs dismissed their concerns, according to the *Times*. The newspaper reported that Google co-founder Sergey Brin ignored the parents' concerns and complained that he was tired of employees who thought that they were to entitled to benefits such as "bottled water and M&Ms."

The article's author, Joe Nocera, concludes, "Google has shown that it thinks about day care the same way every other company does — as a luxury, not a benefit. Judging by what's transpired, that's what Google is fast becoming: just another company."

Another example: Google employees have started deserting the company. In one of the strangest turnarounds, Sergey Solyanik, who was development manager for Windows Home Server at Microsoft before he left for Google, abandoned Google to return to Microsoft — and he blogged about it. Solyanik is not alone; plenty of other Googlers have headed for the exits as well.

Need more evidence that the mojo is gone? Consider this: Google's stock price has plummeted about 34% from more than $740 per share in November 2007 to about $490 early last week. That's even worse than the overall market: The Nasdaq fell 16% and the Dow 17% in the same period. Once a company's stock price follows the market rather than setting its own course, its innovative days are often behind it.

■ If you're thinking of making the jump to Google hosted services, look beyond the magic of the brand name.

Even if Google has lost its mojo, why should you care? It won't make your searches any less effective, will it?

No, your searches won't suffer. But Google has its eyes on bigger things than search, notably your IT department. It's looking to displace Microsoft with hosted services like Google Apps, Gmail and Google Docs.

When Solyanik left Google, he had this to say about Google services such as Gmail and Google Docs: "There's just too much of it that is regularly broken. It seems like every week 10% of all the features are broken. . . . And it's a different 10% every week — the old bugs are getting fixed, the new ones introduced."

Worse yet, he warned that Google's engineers care more about the "coolness" of a service than about the service's effectiveness. "The culture at Google values 'coolness' tremendously, and the quality of service not as much," Solyanik said.

All this is clearly very good news for Microsoft. Microsoft has already lost the search market to Google. If Google ever gets a serious foothold in IT, Microsoft is in trouble.

So what does it mean for you? If you're thinking of making the jump to Google hosted services, look beyond the magic of the brand name. Instead, take a hard look at the services it's trying to sell you, and evaluate Google the same way you would any other vendor.

And the next time you use Gmail, Google Calendar or Google Docs, take a close look at the service's logo. You'll notice the word *beta* there, even though some of those services have been around for several years; Gmail, for example, was launched in 2004. If Google is really ready for IT prime time, shouldn't it move its software out of the beta cycle? ■

Preston Gralla *is a* Computerworld *contributing editor and the author of more than 35 books, including* How the Internet Works *and* Windows Vista in a Nutshell. *Contact him at Preston@gralla.com.*

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WHAT DO YOU HAVE TO SAY?

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Career Watch

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34% 17%

Percentage of IT workers who said they have gained more than 10 or more than 20 pounds, respectively, in their current jobs. As bad as that may seem, IT workers are svelte compared with financial services and government employees. Still, IT workers' weight gains are above average – across all workers who took the online survey, the numbers were 26% and 12%, respectively.

SOURCE: CAREERBUILDER.COM SURVEY OF APPROXIMATELY 7,700 EMPLOYEES (NOT ALL OF THEM IT WORKERS), MAY 2008

The Shape of Retirement

All Fortune 100 companies offer retirement plans. That's not news. And for years, companies have moved away from defined benefit plans, in which they commit to providing certain amounts after retirement, and toward defined contribution plans – where they provide certain amounts ahead of retirement, and what you are able to draw afterward depends on the performance of your investments in the interim. That's not news either. What is news are the figures quantifying the breakdown between defined benefit and defined contribution plans, recently released by Watson Wyatt Worldwide Inc. The compensation consultancy found that not only did participation by companies in defined benefit plans decrease from 90% in 1985 to 54% in 2007, but the percentage of Fortune 100 companies that offer pure defined benefit plans, rather than a hybrid with some defined contribution elements, also fell from 89% to 28% over the same period.

A DEFINED TREND

The breakdown of Fortune 100 companies' retirement plans, 1985-2007

	1985	1998	2004	2007
Defined benefit	90%	90%	74%	54%
■ Traditional	89%	68%	40%	28%
■ Hybrid	1%	22%	34%	26%
Defined contribution only	10%	17%	26%	46%

SOURCE: WATSON WYATT WORLDWIDE

■ **Q&A**

Kevin Daley

The CEO of communications training company **Communispond Inc.** has some tips for the conversationally challenged.

PAGE COMPILED BY JAMIE ECKLE.

IT professionals are often accused by business peers of lacing their language with high-tech acronyms. What are some techniques they can use to break free of this? This is a hard thing to get across sometimes, but there are five forms of evidence to get an idea across: personal stories, analogy, judgment of experts, analysis and statistics/facts. Stats and facts are the most often used. There's an Indian proverb: "Tell me a fact, and I'll learn. Tell me a truth, and I'll believe. Tell me a story, and it will live in my heart forever." Storytelling is the most powerful but least often used form of evidence. Personal stories are the best weapons you've got. I trust the person who's delivering a story; I believe in the person who's telling it.

IT professionals also are often introverts. What are some techniques that can be used to work through shyness? The most important thing is to know what it is you want to say. People may know what they want to say, but without going through the thought process of exactly what that is, they can have a hard time saying it. This thought process includes rehearsal, including using your mouth and body language. Communicating is energy released and energy received. We have to deliver whatever we have to say with energy.

What are the best types of courses to help people to become more effective verbal communicators? Through the Communispond program, people give 11 to 13 talks over two days that are videotaped. Each talk has a purpose and objective, and they are critiqued by the instructor. And then they see it on videotape. The only way to judge a talk is by its impact on the listener. It doesn't matter how comfortable you feel up there speaking. What matters is how the audience feels about it.

Speakers think they're the star of the show, but they're not unless the audience feels they've been given something of value. Everybody can become twice as good as they are now as speakers. It's not how many times you've done this thing [public speaking]; it's how well you do it. IT people tend to keep their heads down more, but they can learn these things.

– THOMAS HOFFMAN

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TRUE TALES OF IT LIFE AS TOLD TO SHARKY

Light Work

In this grade school classroom, the kids are having trouble getting the computers to respond to their mice, and this support pilot fish goes looking for why that's so. But after he checks computers and cleans the mice, everything tests out OK. "I even replaced some of the mice, but the problem persisted until one day I was running late and didn't get to the school until midafternoon," fish reports. "The room, normally brightly lit by the overhead fluorescents, was now ablaze with sunlight from the south-facing windows. Sure enough, the mice were erratic unless I covered them completely with my hand, blocking the direct sunlight. The excessive light was confusing the photoelectric sensors that translate the X-Y motion – but only on bright sunny days or if they didn't have the blinds closed! I took the mice, disassembled them and coated the inside of the beige plastic with black paint. That fixed the problem, and we have since replaced the mice with black plastic ones to avoid future problems."

Aha!

At an IT staff meeting, developers are complaining about network slowdowns that are causing their apps to get bad press for moving at glacial speed. A PC tech quickly explains that there's been a rush to configure replacement antivirus software, and that's contributing to the problem. "It took me three hours to figure out how to automate the install to 'sneaker-net' it," tech says. But IT director pilot fish is puzzled by the mixed metaphor, and he points out that the tech's original plan was to manually install the AV software on each of the organization's workstations. Instead, fish had told him to save time by having the install automated and pushed out through the network. Tech's face noticeably brightens: "Oh, *that's* what you meant . . ."

Now Cut That Out!

Specialty hardware company has a store that needs to access the corporate mainframe 60 miles away through the Internet. "In that store is an employee named Alice, who's gullible and a bit dense," says an IT pilot fish who supports the store remotely. "I had installed a new PC on their sales counter, and one day, a salesman called to say that the programmable keys weren't working. I told him to insert the CD I had left them, and I would fix it remotely. After fixing it, I called him to say it was done and that I would eject the disc. I guess Alice walked into the room because he said, 'Hold on,' and I heard him tell her to go to the counter because I was going to send them a CD. As she watched the CD pop out, all she could say was 'Wow!' "

■ *Make Sharky say "Wow!" with your true tale of IT life at sharky@computerworld.com. You'll score a sharp Shark shirt if I use it.*

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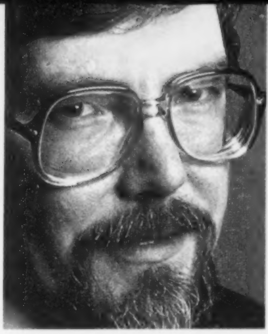

Fast, but Slowly

IS VIRTUALIZATION just too complicated? Consider: In a recent poll of IT professionals at big companies, 37% said virtualization made their IT environments less complex. The rest — almost two-thirds — either said that virtualization made things more complex (27%), that it made no difference (13%) or that they just didn't know (23%).

We need to drive out that complexity, and fast — but slowly.

Yes, fast. And yes, slowly.

Understand, this poll was of 286 senior IT people in the Fortune 1,000. The usual caveats about surveys apply: The sample was small and may not have been random. The margin of error is at least 6%. And this question wasn't even the main point of the survey, which was done by mValent, a vendor that sells tools for managing changes to applications and middleware.

But even taking all that into account, this data point is still a warning flag. Complexity translates into cost. Some of that cost eats into the ROI of a virtualization project from the start. But some is more insidious: Complexity makes a data center ever harder to manage — and ever more fragile. That cost doesn't translate into dollars until things collapse.

This isn't the first warning flag we've seen, either. Last year, CA sponsored a survey of 800 IT organizations and found that 44% of those that had deployed server virtualization were "unable to say whether or not the deployment has been successful."

They literally didn't know how virtualization was working out. Why? Complexity.

We're good at managing real servers. We've got that nailed. But virtual servers can multiply fast. Very quickly, we can find that we're not sure how many virtual servers we have. We don't know how long it will take to back them up, to adjust software configurations and to track performance. We don't know which tools still work, and what techniques don't.

■ We can drive out complexity, but it will take time. That's where 'fast, but slowly' comes in.

But that's merely complexity inside the data center. Want real misery? Just let those problems leak out, in the form of applications that don't work or that run slowly for users. Suddenly, virtualization isn't about reducing energy costs or recapturing server-room floor space; it's about users who can't do their jobs, and managers who do *not* want their departments to be subjected to any more virtual anything, ever.

And an already complex technology initiative turns into a morass of business politics.

How can we avoid that nightmare? We can drive out complexity, but it will take time. That's where "fast, but slowly" comes in.

Look, we all want virtualization to work. Our server rooms are all too full, too hot, too expensive, too much of a mess. Trouble is, we don't have the experience with virtualization that we need. No one does. We can't buy it, we can't hire it, and there's only one real way to develop it: by starting small with pilot projects, then building them up slowly to figure out how this stuff really works.

Sure, we can train and plan — and we should. But there are too many unknowns to train and plan for everything. A slow ramp-up lets us discover and kill problems as we go, reducing complexity at every step. Going slowly means fewer changes at once, fewer nasty surprises, fewer problems leaking out of the data center. It also means direct, desperately needed experience.

But to go slowly, we have to move fast. We can't wait for an ROI analysis or a line item in the budget to start getting that experience. We *can* start right now, today, with a tiny pilot that gets us moving.

See? Fast, but slowly. That's the way to beat virtualization complexity — and get real results. ■

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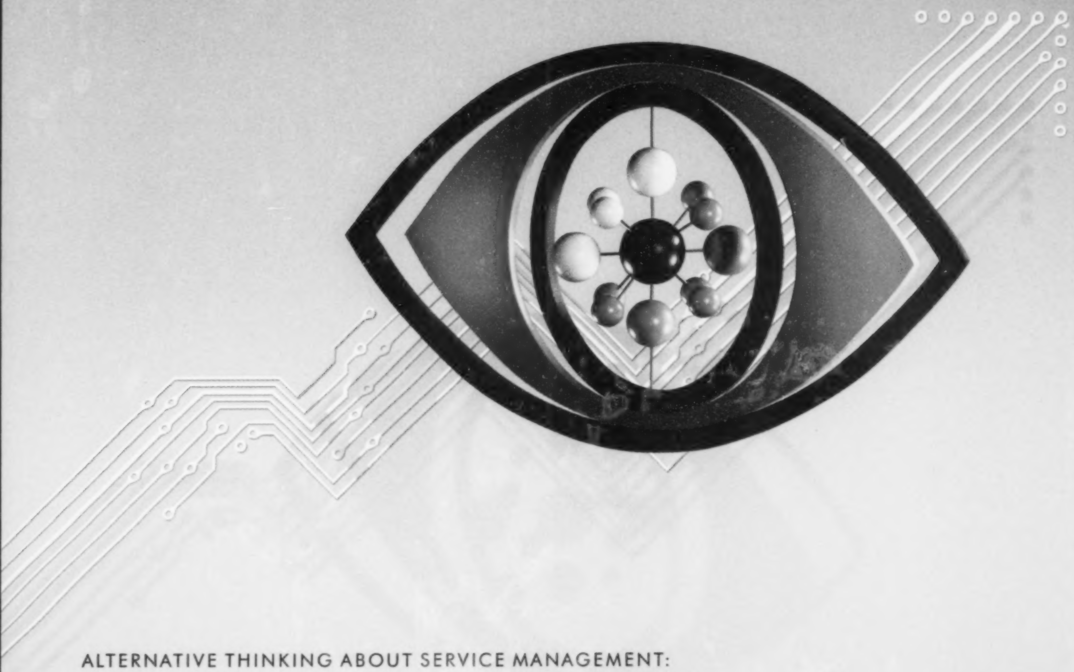

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